athenahealth

2018
Investor Summit

February 15, 2018

agenda

Opening and Closing Remarks
Jonathan Bush • *Chief Executive Officer*

Financial Expectations
Marc Levine • *Chief Financial Officer*

Technology and Platform Strategy
Prakash Khot • *Chief Technology Officer*

Core Services Strategy
Kyle Armbrester • *Chief Product Officer*

Network Services Strategy
Jonathan Porter • *SVP Network Services*

Fireside Chat
Tim O'Brien, *CMO* • Paul Merrild, *SVP Sales* • Bret Connor, *SVP Customer Success*

Safe Harbor Statement

This presentation contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, including statements reflecting athenahealth, Inc. ("athenahealth" or "we") management's expectations for: future financial and operational performance and operating expenditures; expected growth, including total addressable market, expansion of the network and the related network effect, anticipated revenues, profitability, and bookings; market trends and business outlook, including fiscal 2018 guidance; the anticipated benefits of our service offerings and plans and timelines for developing and expanding those offerings, including expansion and deepening of our services, and market expansion; the anticipated benefits of our investments on our revenue growth, profitability and cash flow; near- and long-term goals for our growth and profitability priorities; marketing and sales plans, strategies, and trends; and cultural, operational, and organizational goals and initiatives, including support for the full continuum of care, continued cost cutting initiatives, scale operations and improve efficiency, investments to support our strategies, improve cost of bookings, help our clients grow their market share, and our focus in 2018; the impact of new accounting pronouncements and tax reform; as well as statements found under our reconciliation of Non-GAAP financial measures included within this presentation. Such statements do not constitute guarantees of future performance, are neither promises nor guarantees, and are subject to a variety of risks and uncertainties, many of which are out of our control, which could cause actual results to differ materially from those contemplated in these forward-looking statements. In particular, the risks and uncertainties include, among other things: our highly competitive industry and our ability to compete effectively and remain innovative; the development of the market for cloud-based healthcare information technology services; changes resulting from a change in administration in the United States; changes in the healthcare industry and their impact on the demand for our services; our ability to effectively manage our growth; the impact of implementation of our strategic plan to improve operational efficiency; our ability to protect our intellectual property; current and future litigation, including for intellectual property infringement; our dependence on third-party providers; risks and costs associated with our worldwide operations; our ability to attract and retain highly skilled employees; our ability to successfully implement any transitions in our management; our fluctuating operating results; our ability to retain our clients and maintain client revenue; our tax liability; our variable sales and implementation cycles; the timing at which we recognize certain revenue and our ability to evaluate our prospects; defects and errors in our software or services, or interruptions or damages to our systems or those of third parties on which we rely; a data security breach; limitations on our use of data; the effect of payer and provider conduct; the failure of our services to provide accurate and timely information; changes in government regulation and the costs and challenges of compliance; the potential for illegal behavior by employees or subcontractors; and the price volatility of our common stock. Existing and prospective investors are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof. We undertake no obligation to update or revise the information contained in this presentation, whether as a result of new information, future events or circumstances, or otherwise, except as required by law. For additional information regarding these and other risks faced by us, please see the disclosures contained in our public filings with the Securities and Exchange Commission, available on the Investors section of our website at http://www.athenahealth.com and on the SEC's website at http://www.sec.gov.

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In our press releases, conference calls, slide presentations, or webcasts, we may use or discuss non-GAAP financial measures, as defined by Regulation G. The GAAP financial measure most directly comparable to each non-GAAP financial measure used or discussed herein, and a reconciliation of the differences between each non-GAAP financial measure and the comparable GAAP financial measure, are available within this presentation and within our public filings with the Securities and Exchange Commission, available on the Investors section of our website at http://www.athenahealth.com.

athenahealth

Opening Remarks

Jonathan Bush
Chief Executive Officer

We are now – and have always been– building the platform for healthcare.

Our purpose

**unleashing our collective potential
to transform healthcare**

athenahealth

Our purpose

We are the enabler ▼

It's not just about us – it's about everyone ▼

unleashing our collective potential to transform healthcare

▲ We're changing the industry

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Our purpose

Open up
the network…

…multiply
its intelligence…

…and free people
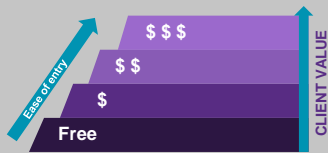to do what matters

athenahealth

Our purpose

unleashing our collective potential to transform healthcare

Our Commitments

Open the network	Multiply intelligence	Free people to do what matters

Our Fundamentals

People	Culture	Tech

Our Results

Revenue growth	Operating results	Managed risk

Our purpose

unleashing our collective potential to transform healthcare

Our Commitments

| Open the network | Multiply intelligence | Free people to do what matters |

$ $ $

$ $

$

Free

Ease of entry

CLIENT VALUE

Our Fundamentals

| People | Culture | Tech |

Our Results

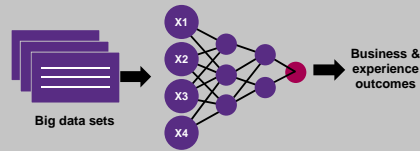| Revenue growth | Operating results | Managed risk |

Our purpose

unleashing our collective potential to transform healthcare

Our Commitments

Open the network	Multiply intelligence	Free people to do what matters

Big data sets

Business & experience outcomes

Our Fundamentals

People	Culture	Tech

Our Results

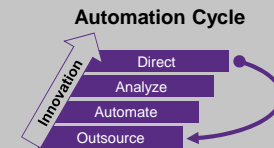| Revenue growth	Operating results	Managed risk

Our purpose

unleashing our collective potential to transform healthcare

Our Commitments

Open the network	Multiply intelligence	Free people to do what matters

Automation Cycle

Innovation

Direct
Analyze
Automate
Outsource

Our Fundamentals

People	Culture	Tech

Our Results

Revenue growth	Operating results	Managed risk

Our purpose

unleashing our collective potential to transform healthcare

Our Commitments

Open the network	Multiply intelligence	Free people to do what matters

Our Fundamentals

People	Culture	Tech

Teach healthcare and "agile"

Simple
Candid
Relevant
Edgy

Microservices
Real-time intelligence
Debt discipline

Revenue growth	Operating results	Managed risk

Our purpose

unleashing our collective potential to transform healthcare

Our Commitments

Open the network	Multiply intelligence	Free people to do what matters

Our Fundamentals

People	Culture	Tech

Our Results

7-13%

16-17%
operating income

Diversify revenue through new services and markets

Revenue growth	Operating results	Managed risk

Our purpose

unleashing our collective potential to transform healthcare

Our Commitments

Open the network	Multiply intelligence	Free people to do what matters

Our Fundamentals

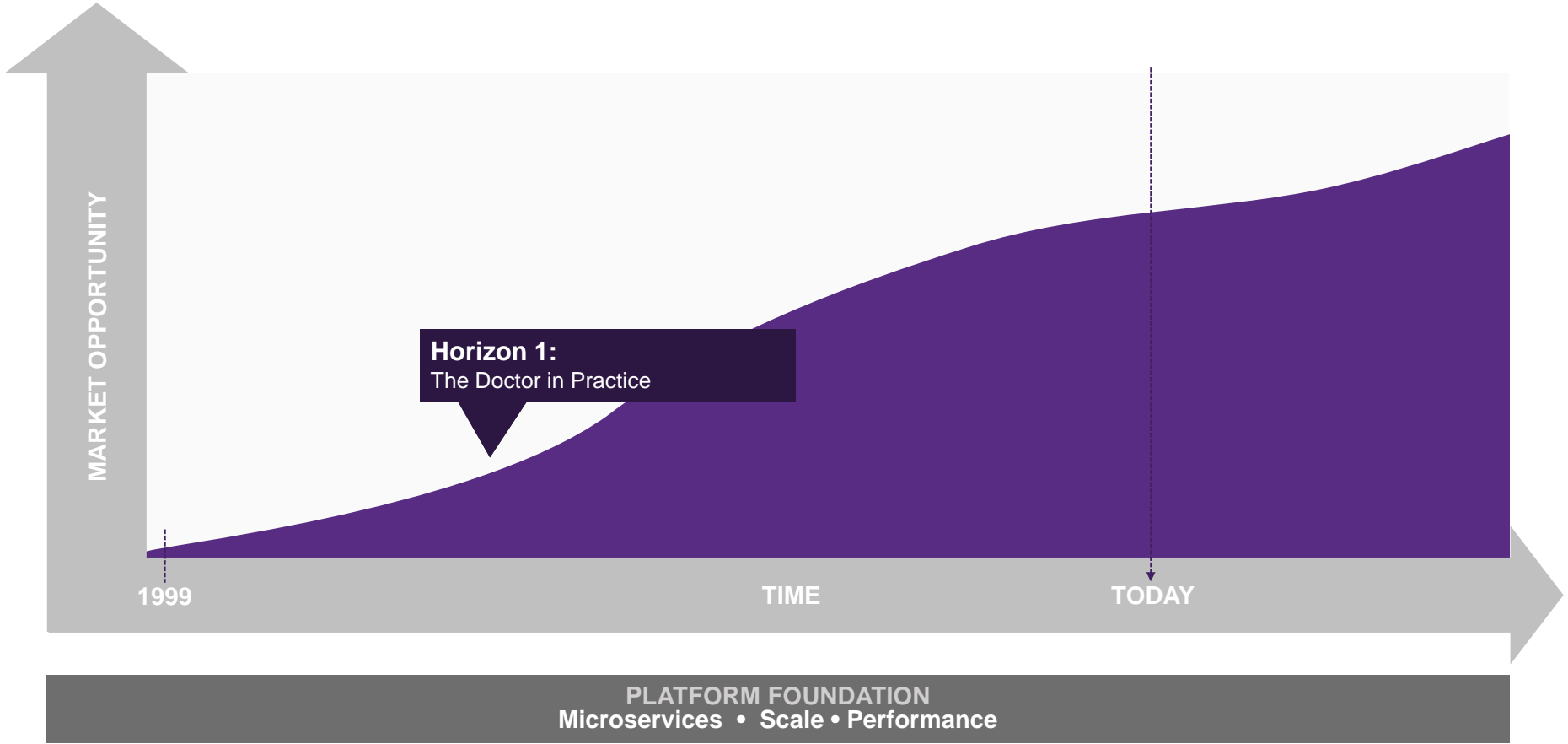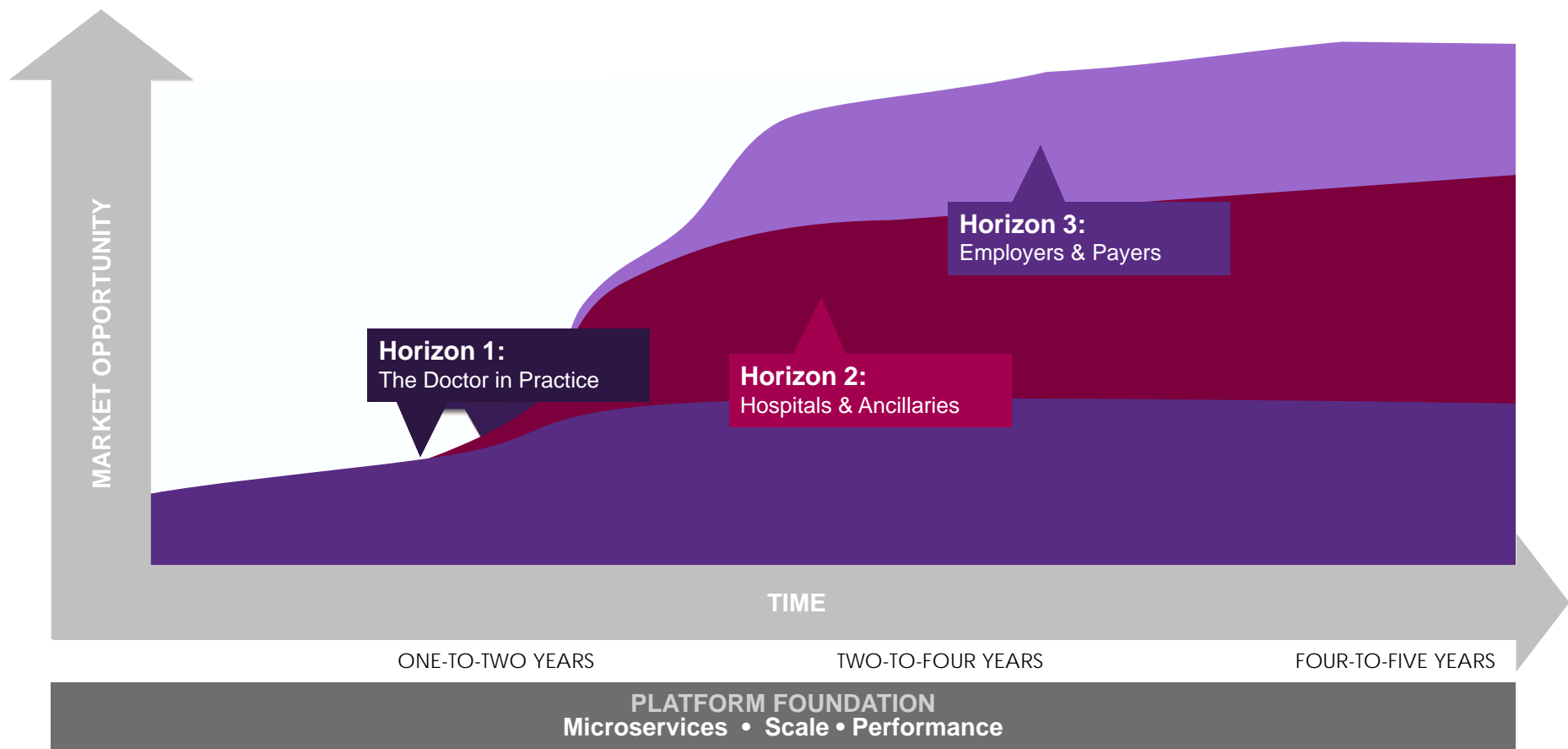| People	Culture	Tech

Our Results

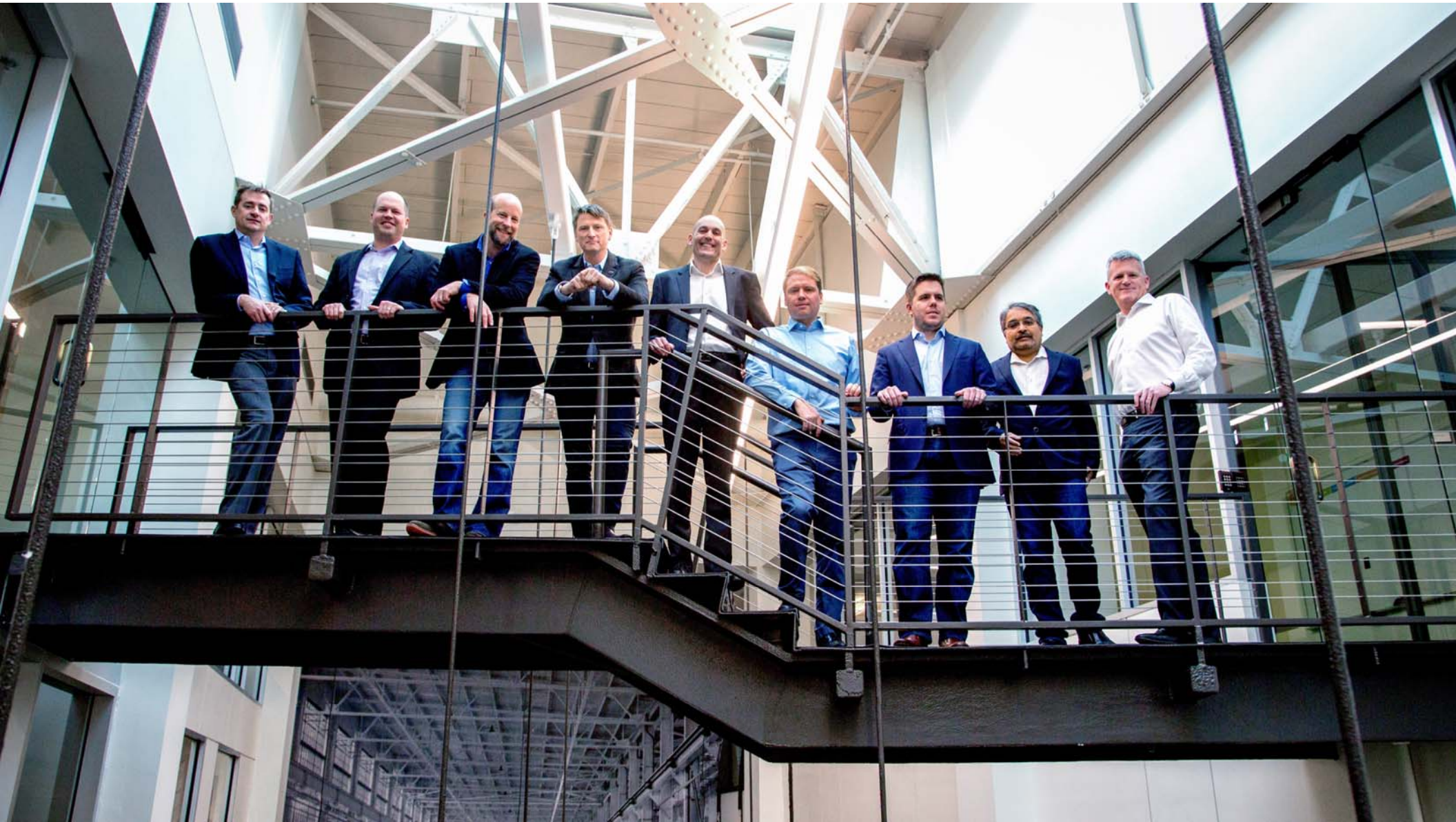| Revenue growth	Operating results	Managed risk

In order to achieve our vision, we will invest in three growth markets over the next five years.

Horizon 1:
The Doctor in Practice

MARKET OPPORTUNITY

1999   TIME   TODAY

PLATFORM FOUNDATION
Microservices • Scale • Performance

MARKET OPPORTUNITY

Horizon 1:
The Doctor in Practice

Horizon 2:
Hospitals & Ancillaries

Horizon 3:
Employers & Payers

TIME

ONE-TO-TWO YEARS   TWO-TO-FOUR YEARS   FOUR-TO-FIVE YEARS

PLATFORM FOUNDATION
Microservices • Scale • Performance

2017 financial and operational highlights

Total Revenue
$1.220B
13% YoY Growth

GAAP/Non-GAAP OP Inc[1]
$71M/$175M
5.8%/14.3% of Revenue

Operating Cash Flow
$241M
32% YoY Growth

Collector Providers
111K
15% YoY Growth

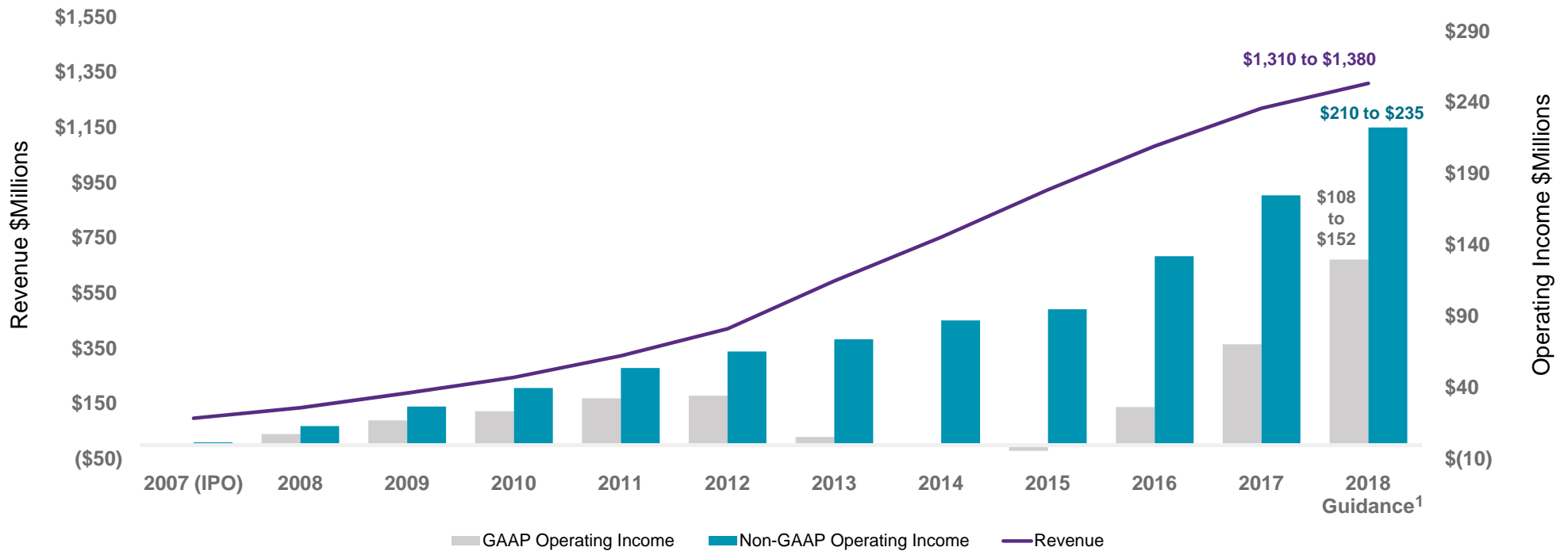**Discharge Bed Days**
73K
>500% YoY Growth

Covered Lives
3.3M
48% YoY Growth

[1] See non-GAAP reconciliation tables included in the appendix to this presentation as well as in the 2/1/18 press release.

While we remain focused on growth, we see opportunity for operating income expansion

GAAP Operating Income — Non-GAAP Operating Income — Revenue

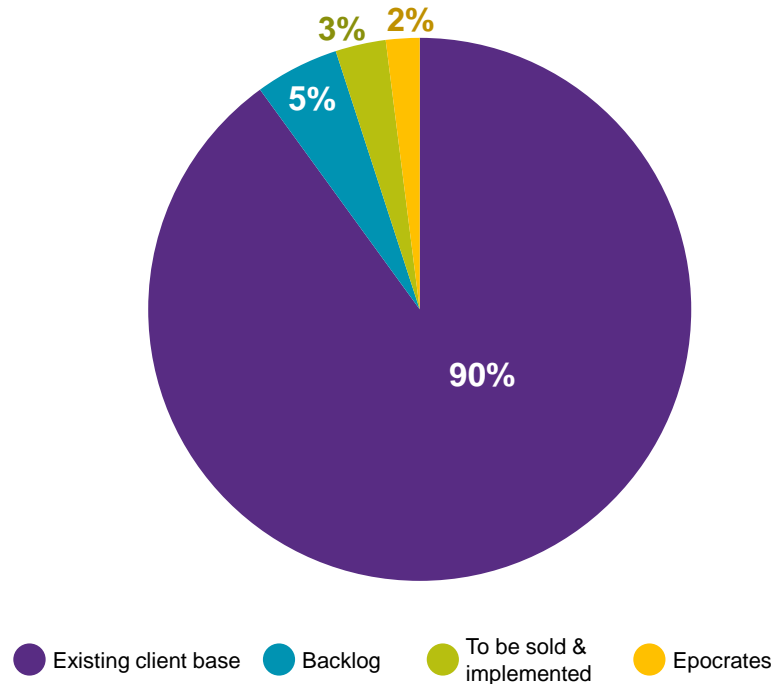$1,310 to $1,380
$210 to $235
$108 to $152

Note: These estimates reflect our current operating plan as of February 15, 2018, and are subject to change as future events and opportunities arise. Furthermore, our 2018 guidance is prior to the impact of any new accounting standards, including ASC 606, to allow for comparability against historical results.
[1] See non-GAAP reconciliation tables included in the appendix to this presentation as well as in the 2/14/18 press release.

Our large installed base of recurring revenue provides a foundation for future growth and margin expansion

% Share of 2018 Revenue Budget

90%

5%

3% 2%

Legend:
- Existing client base
- Backlog
- To be sold & implemented
- Epocrates

Key Assumptions

Existing Client Base
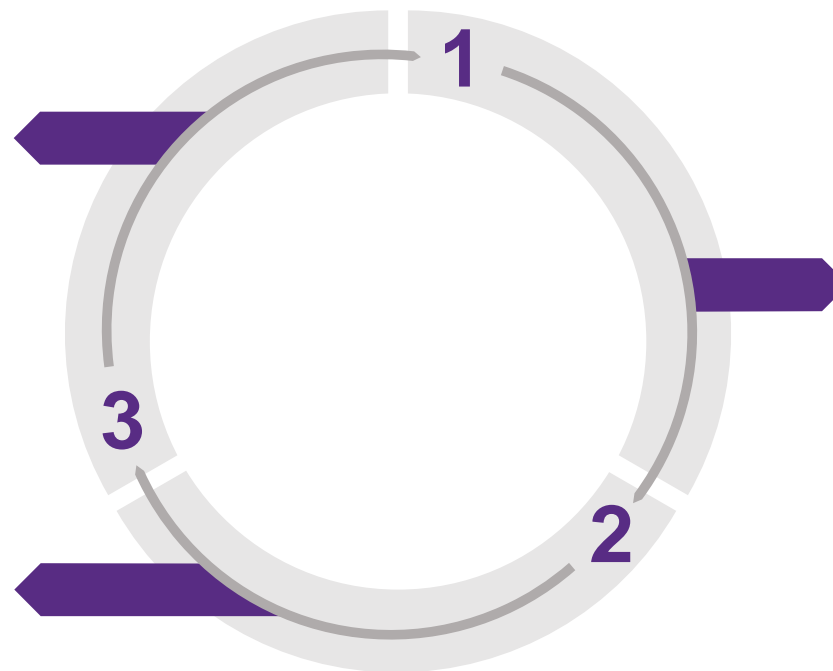Client Retention
Utilization
Client Ramp

Backlog & Bookings
1H 2018 Bookings
Implementation Timelines

Note: These estimates reflect our current operating plan as of February 15, 2018, and are subject to change as future events and opportunities arise. Furthermore, our 2018 guidance is prior to the impact of any new accounting standards, including ASC 606, to allow for comparability against historical results.

Based on the investment opportunity horizon, we'll seek an optimal balance between revenue growth, operating margin, and free cash flow
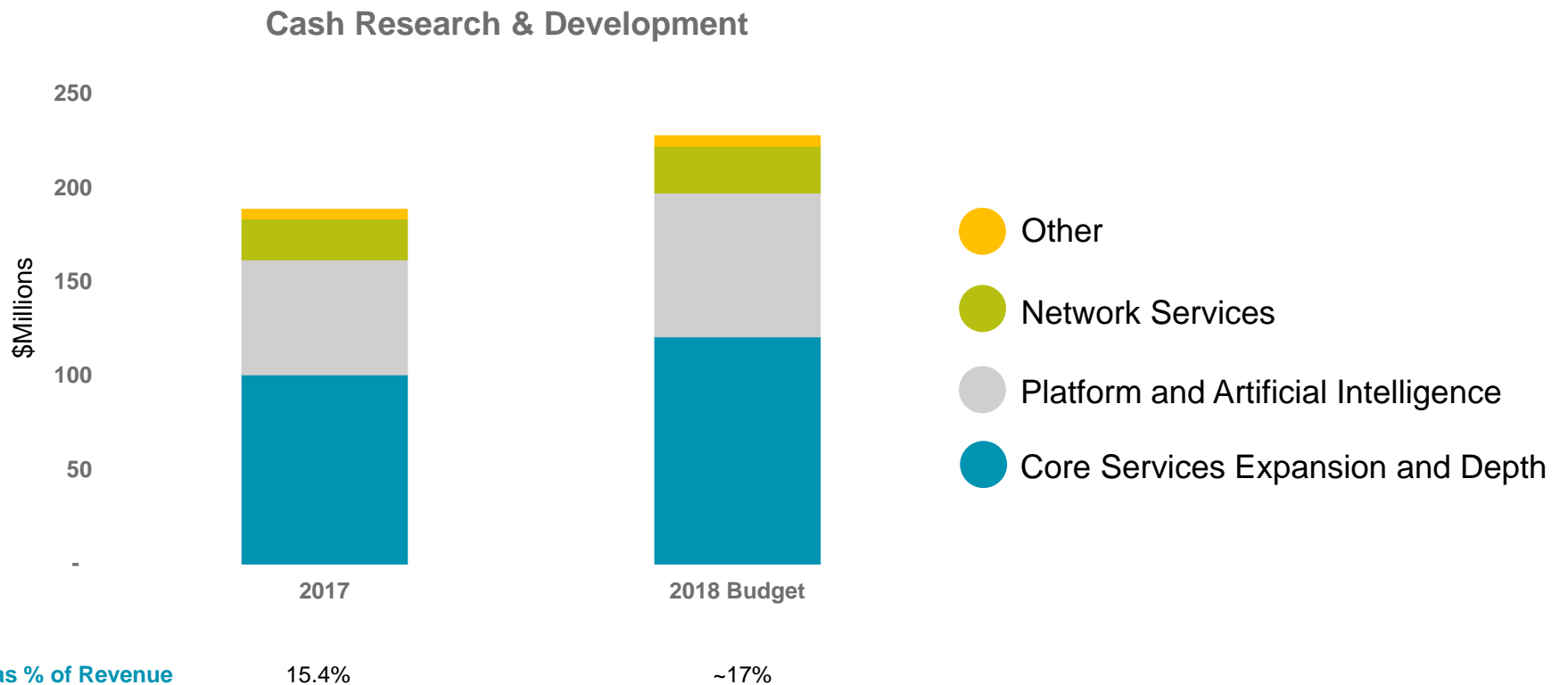
Continuously identify and generate **operating efficiencies across the business**

1

Carefully select investments with: **high return and high growth contributions**

3

2

Focus and flawlessly **deliver the select strategic initiatives**

We plan to increase investment in Research & Development to support our near term product and technology initiatives

Cash Research & Development

Legend:
- **Other** (orange)
- **Network Services** (green)
- **Platform and Artificial Intelligence** (gray)
- **Core Services Expansion and Depth** (teal)

Y-axis: $Millions (0, 50, 100, 150, 200, 250)

X-axis categories: 2017, 2018 Budget

Cash R&D as % of Revenue — 2017: 15.4%, 2018 Budget: ~17%

Note: These estimates reflect our current operating plan as of February 15, 2018, and are subject to change as future events and opportunities arise. Furthermore, our 2018 guidance is prior to the impact of any new accounting standards, including ASC 606, to allow for comparability against historical results.

Despite increased investment in Research & Development, we expect profitability to improve significantly in fiscal year 2018
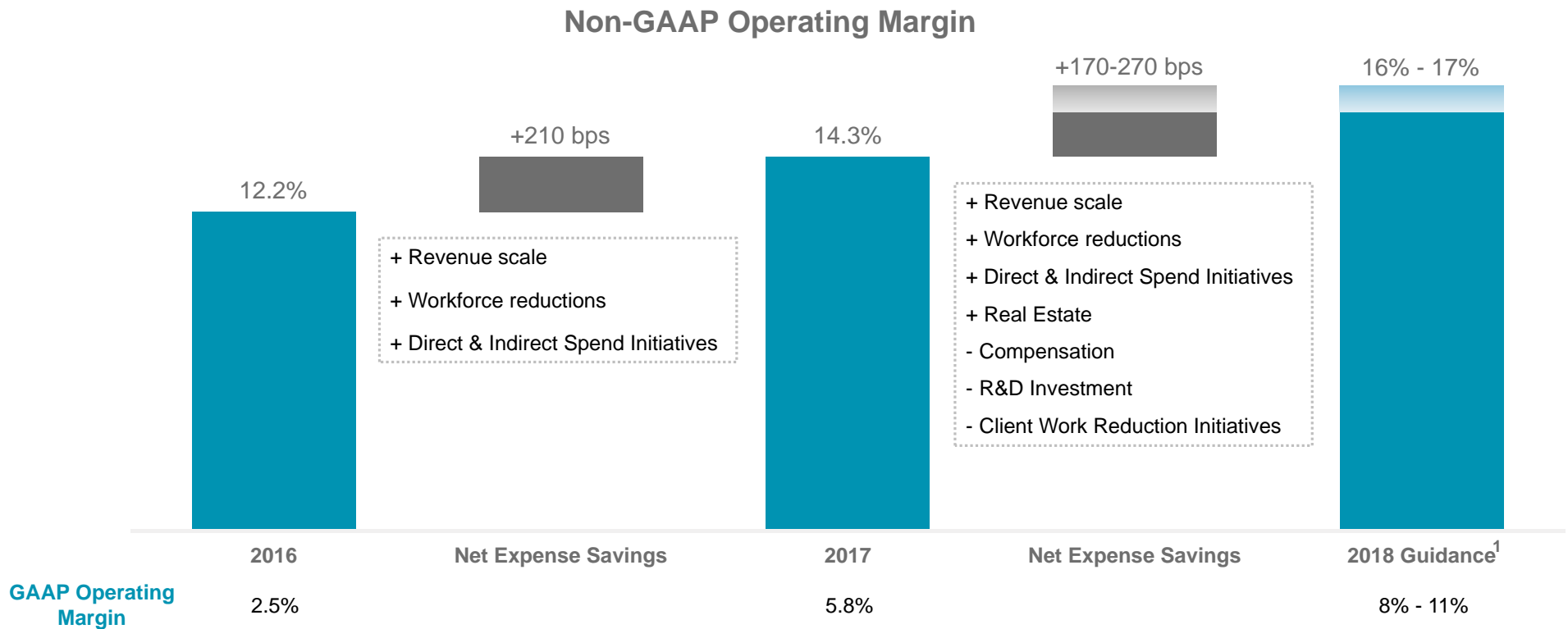
$Millions

	2015	2016	2017	2018 Guidance[1] (midpoint)
● GAAP Operating Income	● Non-GAAP Operating Income			
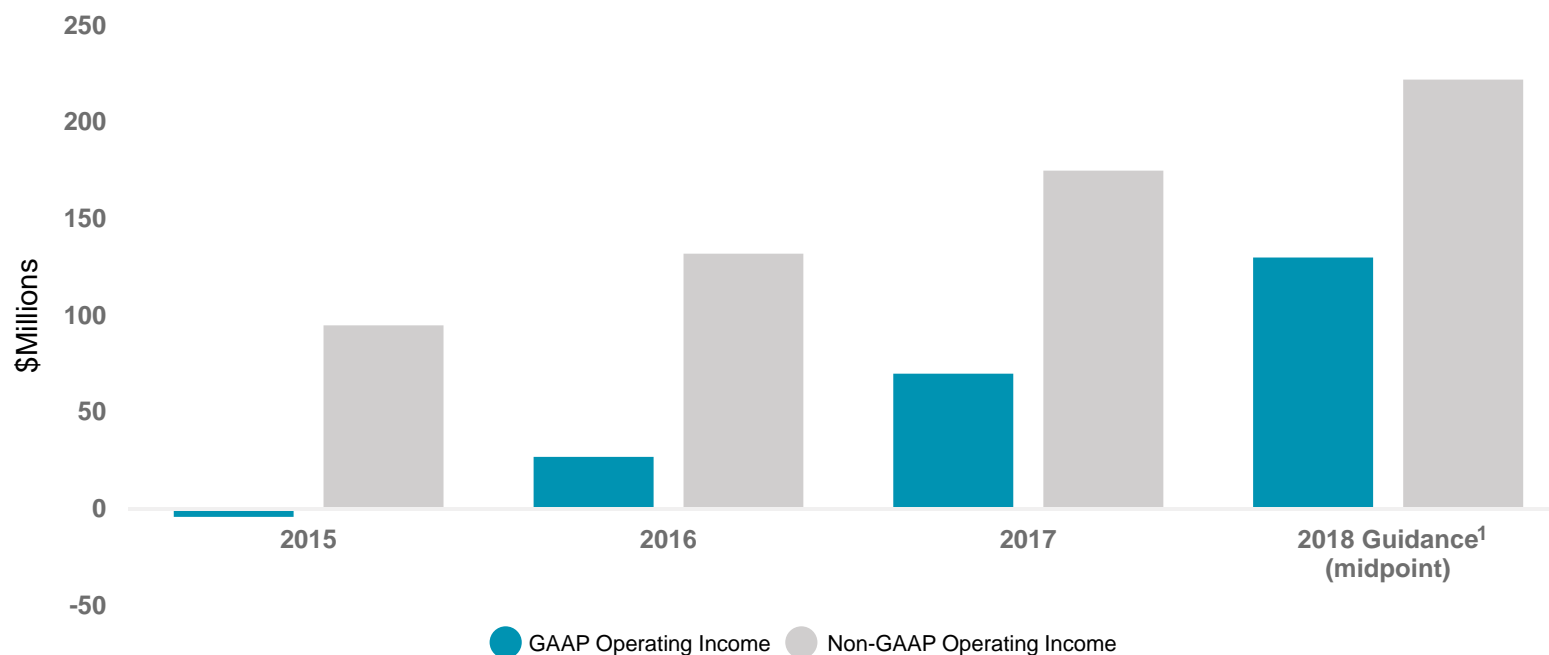
	2015	2016	2017	2018 Guidance[1] (midpoint)
GAAP Operating Margin	(0.4%)	2.5%	5.8%	8% - 11%
Non-GAAP Operating Margin	10.3%	12.2%	14.3%	16% - 17%

Note: These estimates reflect our current operating plan as of February 15, 2018, and are subject to change as future events and opportunities arise. Furthermore, our 2018 guidance is prior to the impact of any new accounting standards, including ASC 606, to allow for comparability against historical results.
[1] See non-GAAP reconciliation tables included in the appendix to this presentation as well as in the 2/14/18 press release.

We will expand operating leverage through a combination of revenue scale and net expense savings

Non-GAAP Operating Margin

+170-270 bps

16% - 17%

14.3%

+210 bps

12.2%

+ Revenue scale

+ Workforce reductions

+ Direct & Indirect Spend Initiatives

+ Real Estate

- Compensation

- R&D Investment

- Client Work Reduction Initiatives

+ Revenue scale

+ Workforce reductions

+ Direct & Indirect Spend Initiatives

	2016	Net Expense Savings	2017	Net Expense Savings	2018 Guidance[1]
GAAP Operating Margin	2.5%		5.8%		8% - 11%

Note: These estimates reflect our current operating plan as of February 15, 2018, and are subject to change as future events and opportunities arise. Furthermore, our 2018 guidance is prior to the impact of any new accounting standards, including ASC 606, to allow for comparability against historical results.
[1] See non-GAAP reconciliation tables included in the appendix to this presentation as well as in the 2/14/18 press release.

Our fiscal year 2018 growth and profitability expectations…

Fiscal Year 2018 Expectations	
Financial Measures	
GAAP Revenue	$1,310 million - $1,380 million
GAAP Operating Income	$108 million - $152 million
GAAP Operating Margin	*8% - 11%*
Non-GAAP Operating Income[1]	$210 million - $235 million
Non-GAAP Operating Margin[1]	*16% - 17%*

Note: These estimates reflect our current operating plan as of February 15, 2018, and are subject to change as future events and opportunities arise. Furthermore, our 2018 guidance is prior to the impact of any new accounting standards, including ASC 606, to allow for comparability against historical results.
[1] See non-GAAP reconciliation tables included in the appendix to this presentation as well as in the 2/14/18 press release.

Expected Impact of the Adoption of ASC 606 on our results

Revenue

- Seasonality may change as revenue will be dependent on claims to be submitted vs. collections
- Upon adoption, elimination of deferred revenue will not have a significant impact
- No new "upfront" revenue that certain software and hosted software companies may have

Operating Income

- Defer certain commissions costs for 12 years
- Defer certain professional services set-up costs (pre-go-live) for 12 years

Balance Sheet

- Increased capitalized long-term assets for deferred commissions & professional services set-up costs
- Decreased deferred revenue for non-refundable up-front fees previously deferred for 12 years

Expected Impact of Tax Reform on our results

Non-GAAP Tax Rate

- 2017: **40%**
- Expected for 2018: **25%**

As primarily a domestic company, many of the major impacts of the tax reform will not significantly impact us

Our Tax Provision & Cash Taxes Paid

- We have historically paid a nominal amount of taxes
- Due to our cost reduction initiatives – outside of the impact of this reform – we will begin to pay a higher level of cash taxes
- We estimate 2018 cash taxes of ~**$5M - $10M**

Key Takeaways

✅ Plan to strike an optimal balance between **revenue growth, operating income, and free cash flow**

✅ Committed to executing with **greater discipline, clarity, and consistency**

✅ Well positioned to drive **long-term profitable growth and enhance shareholder value**

Presentation Break

Technology & Platform Strategy

Prakash Khot
Chief Technology Officer

The promise of the platform

WE ARE COMMITTED TO:

Opening up the network

Multiplying its intelligence

Freeing people to do what matters

IN THE PURSUIT OF DELIVERING A PLATFORM FOR HEALTHCARE THAT IS:

Fast, scalable, cost efficient, resilient, collaborative, and infinite in possibilities.

105,844,599

Patients since 2000

124,438,549

9,951,931,138

Interface transactions in 2017

175,388,270

Clinical orders processed in 2017

91,872,238

Prescription orders processed in 2017

34,357,288

Lab result orders processed in 2017

1,452,196

Epocrates unique users in 2017

90%

Document classifications performed with machine learning in 2017

190%

Increase in "ready for release" features since March 2017

2017 was – by the numbers – athenaNet's best year ever

but from a technology and platform perspective, that's not the whole story.

The healthcare internet vision demands the availability of intelligent and networked enabled services

	PRE-VISIT		VISIT		POST-VISIT		ON-GOING	
OUR PROJECT	**Provider and Practice Enrollment**	**Acquisition and Scheduling**	**Registration and Check-in**	**Intake and Exam**	**Ordering and Referring**	**Claims and Payments**	**Care Coordination**	**Automation and Insight**
The healthcare internet vision	**Linked in** for doctors	**OpenTable** for healthcare	**TripIt** Organize your travel for appointments	**facebook** for patients	**UBER** for referrals	**venmo** for claims	**slack** for care teams	**autopilot** for care delivery
CURRENT STATE	Faxes and forms	Phone tag and appointment requests	Clipboards and photocopies	Documents and Templates	Business cards and print outs	Batches and errors	Letters and scans	BPOs and reports

Despite athenaNet's success, our applications are still only *semi-automatic*

Our outstanding year required the support of:

4,238+
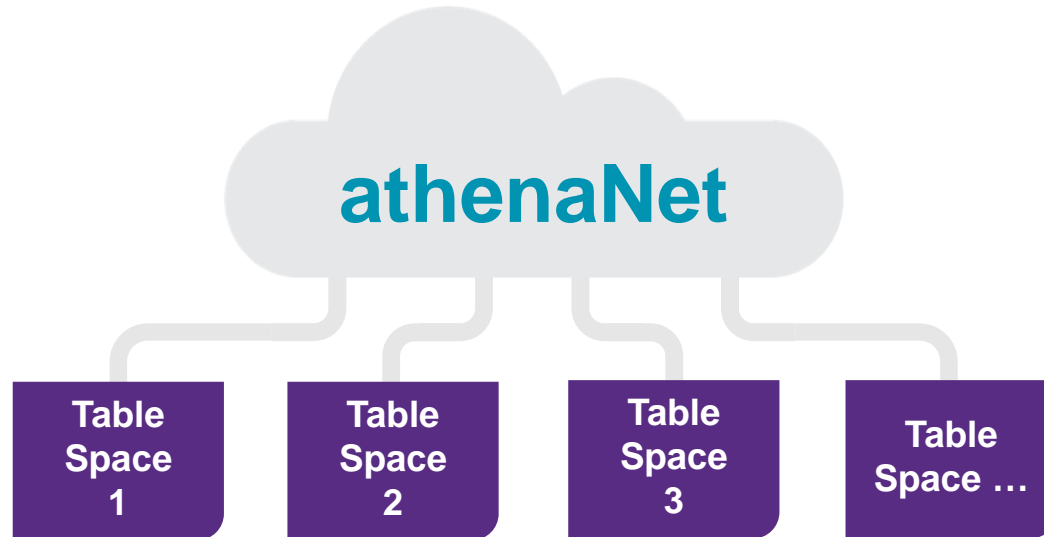**Engineers, product managers, customer success and operations athenistas**
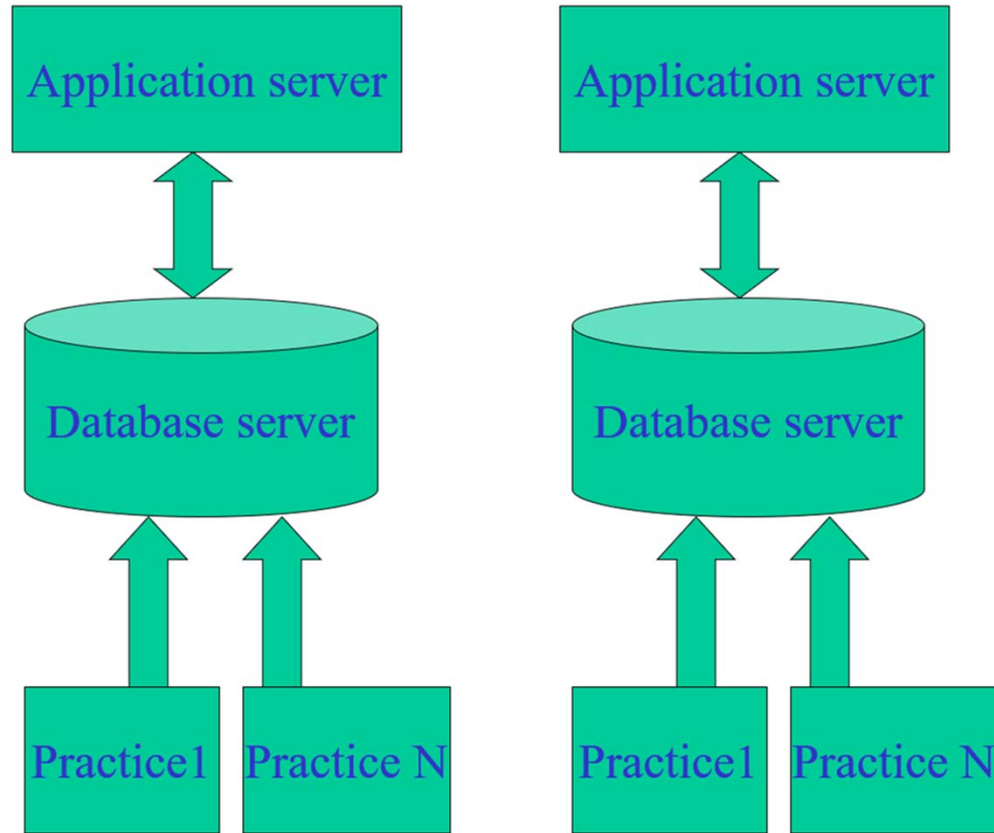
4,438+
Business Process Office workers

endless
Efforts for transparency
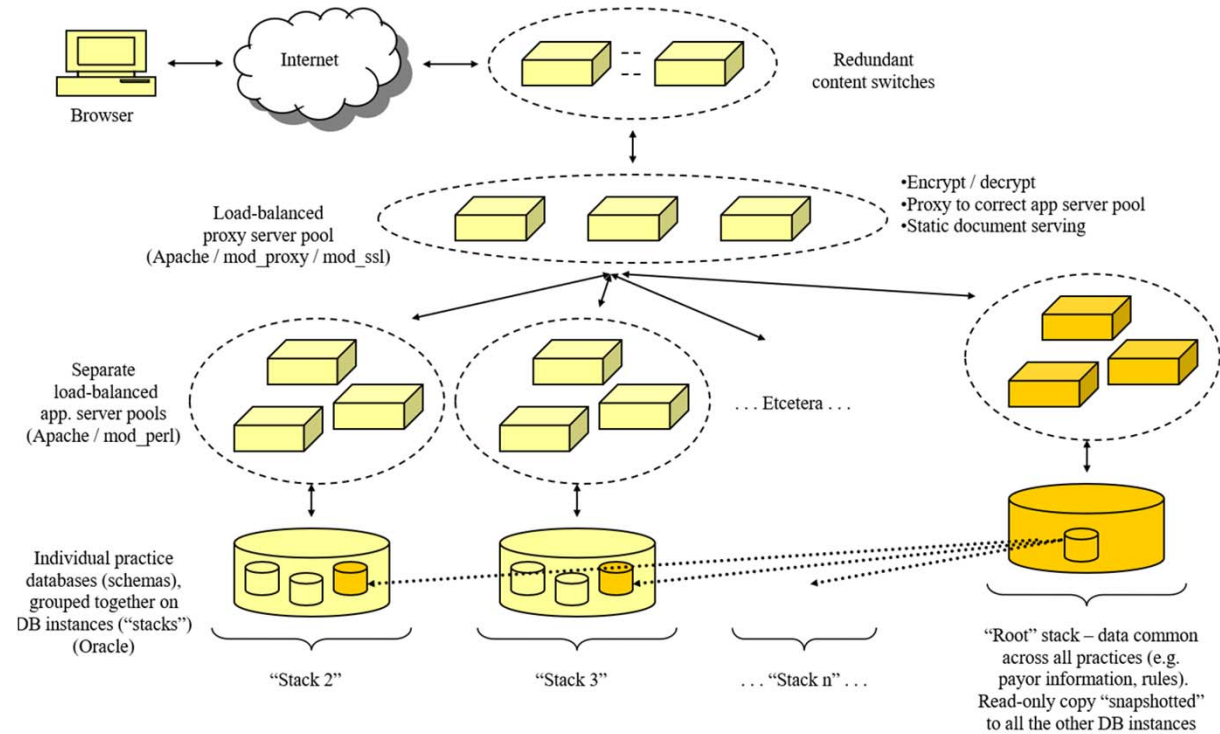
Modern systems demand distributed data models that can support growing network effects

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2004

Application server

Application server

Database server

Database server

Practice 1   Practice N

Practice 1   Practice N

athenaNet
2005

Browser ↔ Internet ↔ Redundant content switches

•Encrypt / decrypt
•Proxy to correct app server pool
•Static document serving

Load-balanced proxy server pool (Apache / mod_proxy / mod_ssl)

Separate load-balanced app. server pools (Apache / mod_perl)

. . . Etcetera . . .

Individual practice databases (schemas), grouped together on DB instances ("stacks") (Oracle)

"Stack 2"   "Stack 3"   . . . "Stack n" . . .

"Root" stack – data common across all practices (e.g. payor information, rules). Read-only copy "snapshotted" to all the other DB instances

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athenaNet Systems Architecture Including Edge Systems

Internet

Interface Servers

Load Balancer

Static Pool
- webstatic100
- webstatic101

Web Pool 2
- web102 web103
- web104 web105

PCI Webs
- pciweb10
- pciweb11

Surge Pool
- websurge100 websurge102
- websurge101 websurge103

Misc

Payer Site
ODS
AthenaX Web

Sugar

Webs, DBs

devro

DB2

Rabbit MQ

MemCache

Job Servers
jobXXX
logjobXXX
clinocrXXX
abbyocrXXX

FileCloud Pool 2
- fcweb10
- fcweb11

Communicator

Webs, DBs, Dialers, FS, Jobs, SIP Proxies

Fuzzies

Webs, DBs, Kryptons

Infrastructure

Scribe, Nagios, Bastion, Deployment, Names, Puppet, Cobbler

Fax Servers
- faxfsa101
- faxfsa201

Barcode Pool
- barcode10
- barcode16

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athenaNet
2015

High Level athenaNet System Diagram
(Interactivity Flow)
Corporate Systems

athenaNet
TODAY

We launched a transformation last year that we've already made great progress against

1

Migrate to microservices architecture

2

Adopt mobile and social, purpose-built apps

3

Adopt a progressive Agile culture and process

4

Complement private cloud with public cloud

5

Adoption of open source technologies to build new capabilities

6

Enable developers to adopt choice of programming languages and frameworks

7

Test-driven development

8

Adopt a container-based deployment architecture
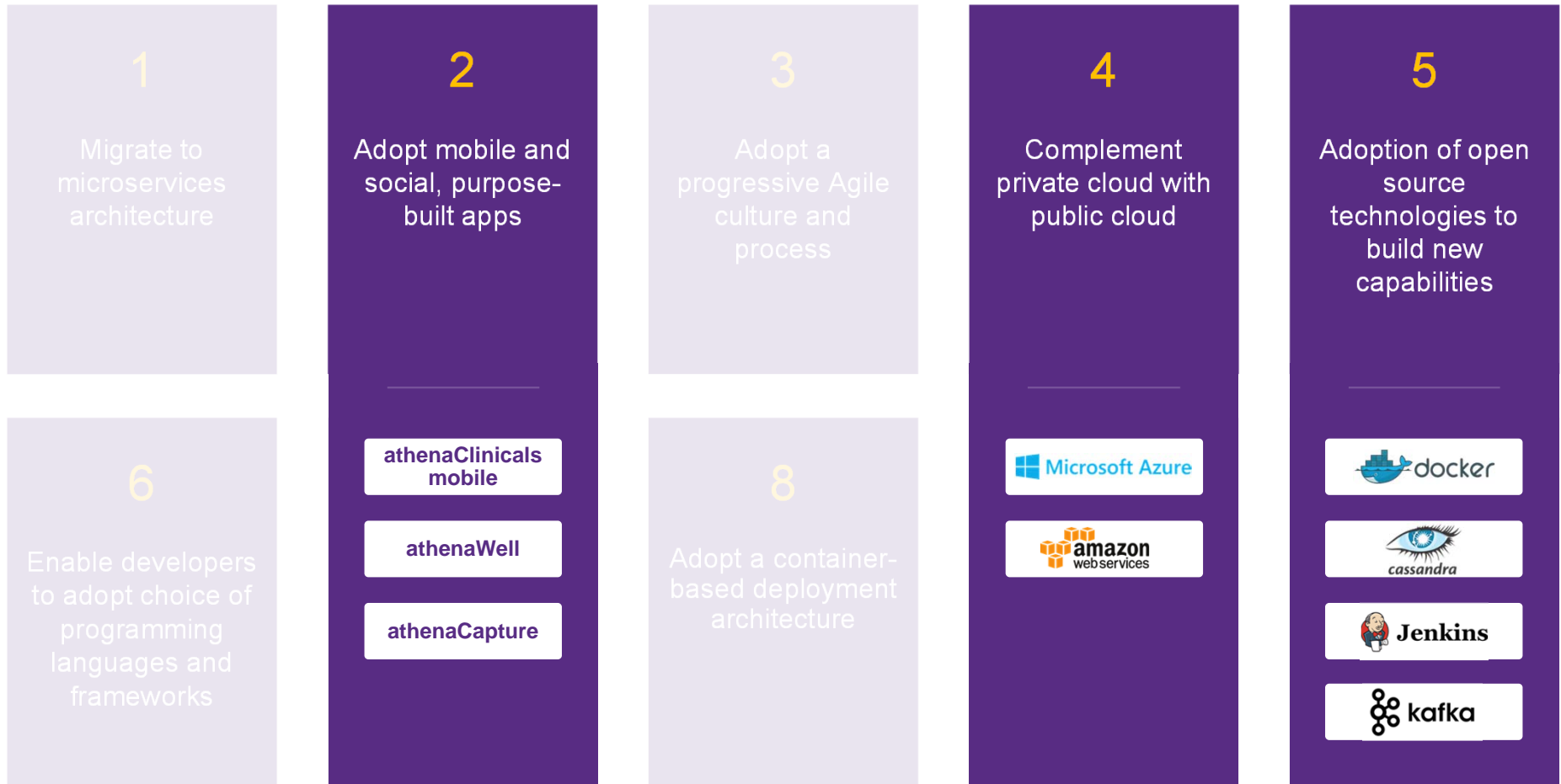
9

Evolve towards a true bottoms-up product and R&D culture

10

Sustained investment in platform

We launched a transformation last year that we've already made great progress against

1

Migrate to microservices architecture

2

Adopt mobile and social, purpose-built apps

athenaClinicals mobile

athenaWell

athenaCapture

3

Adopt a progressive Agile culture and process

4

Complement private cloud with public cloud

Microsoft Azure

amazon web services

5

Adoption of open source technologies to build new capabilities

docker

cassandra

Jenkins

kafka

6

Enable developers to adopt choice of programming languages and frameworks

8

Adopt a container-based deployment architecture

Continuously re-platforming athenaNet remains a paramount initiative

"Serengeti" platform division is functional and fully staffed

Established a well understood Platform definition

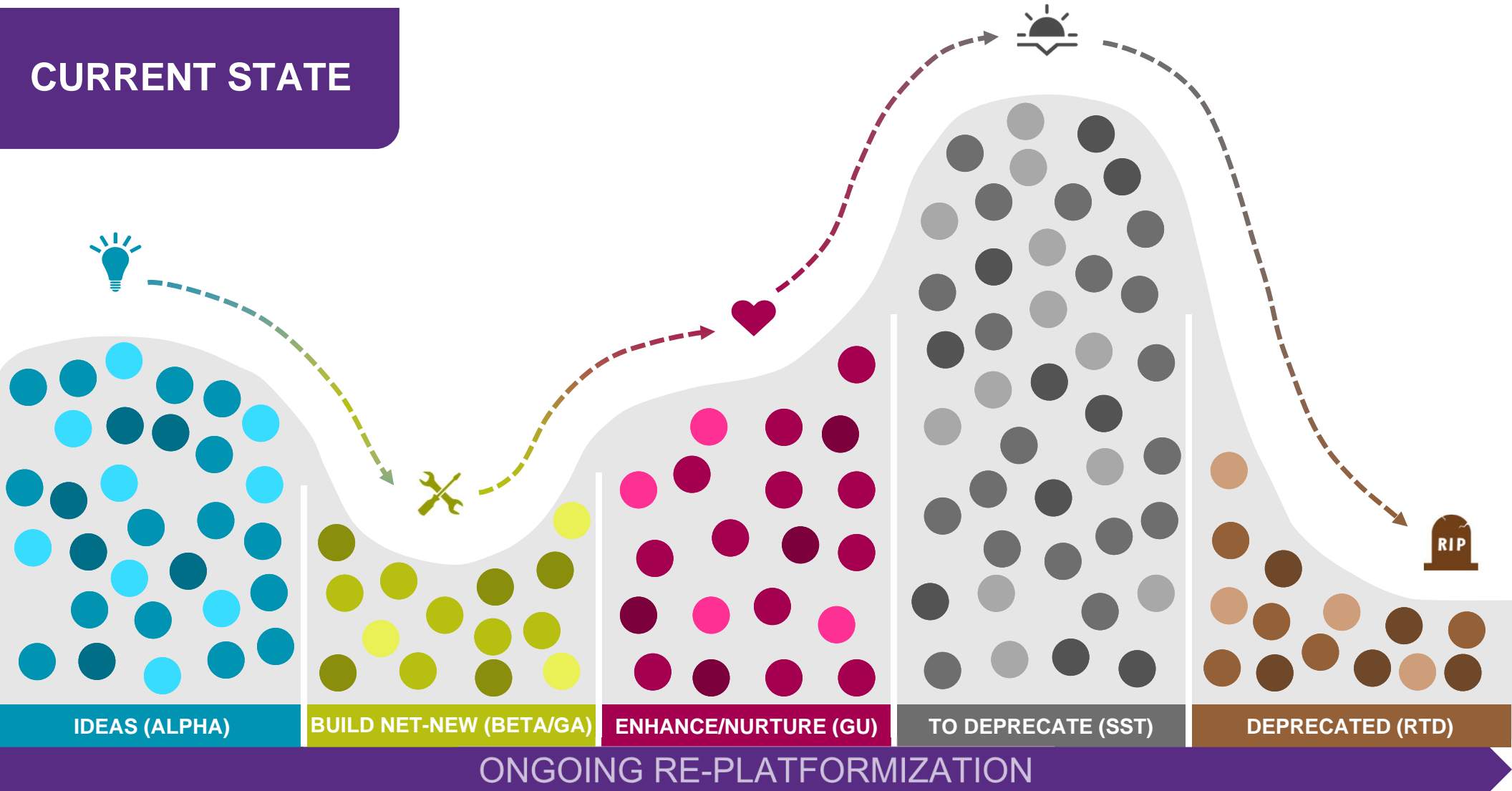**Established and executed on a transformational strategy**

Bootstrapped and built several foundational and domain microservices

The first 10 microservices will see daylight and significant adoption during 2018
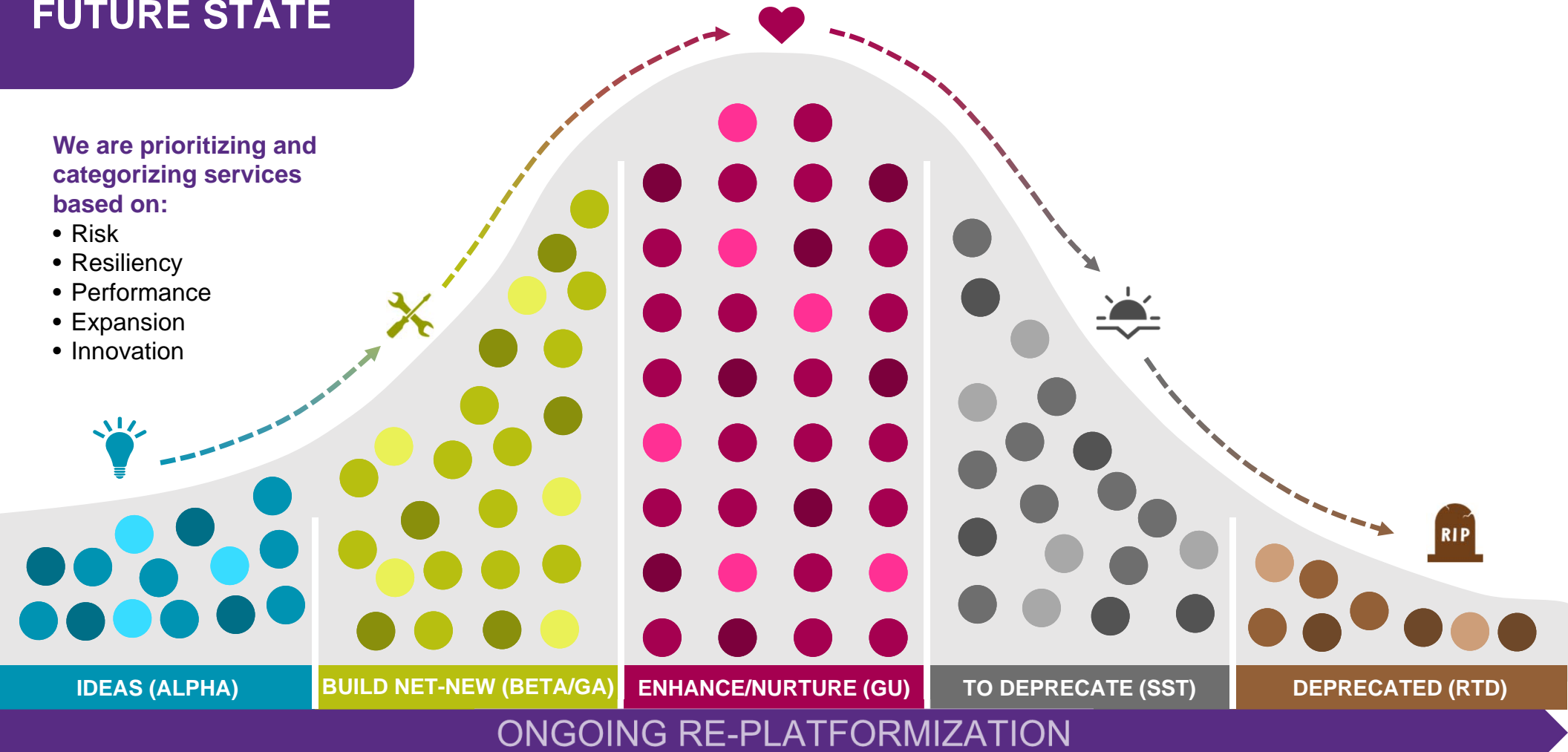
2017

2018

CURRENT STATE

IDEAS (ALPHA) | BUILD NET-NEW (BETA/GA) | ENHANCE/NURTURE (GU) | TO DEPRECATE (SST) | DEPRECATED (RTD)
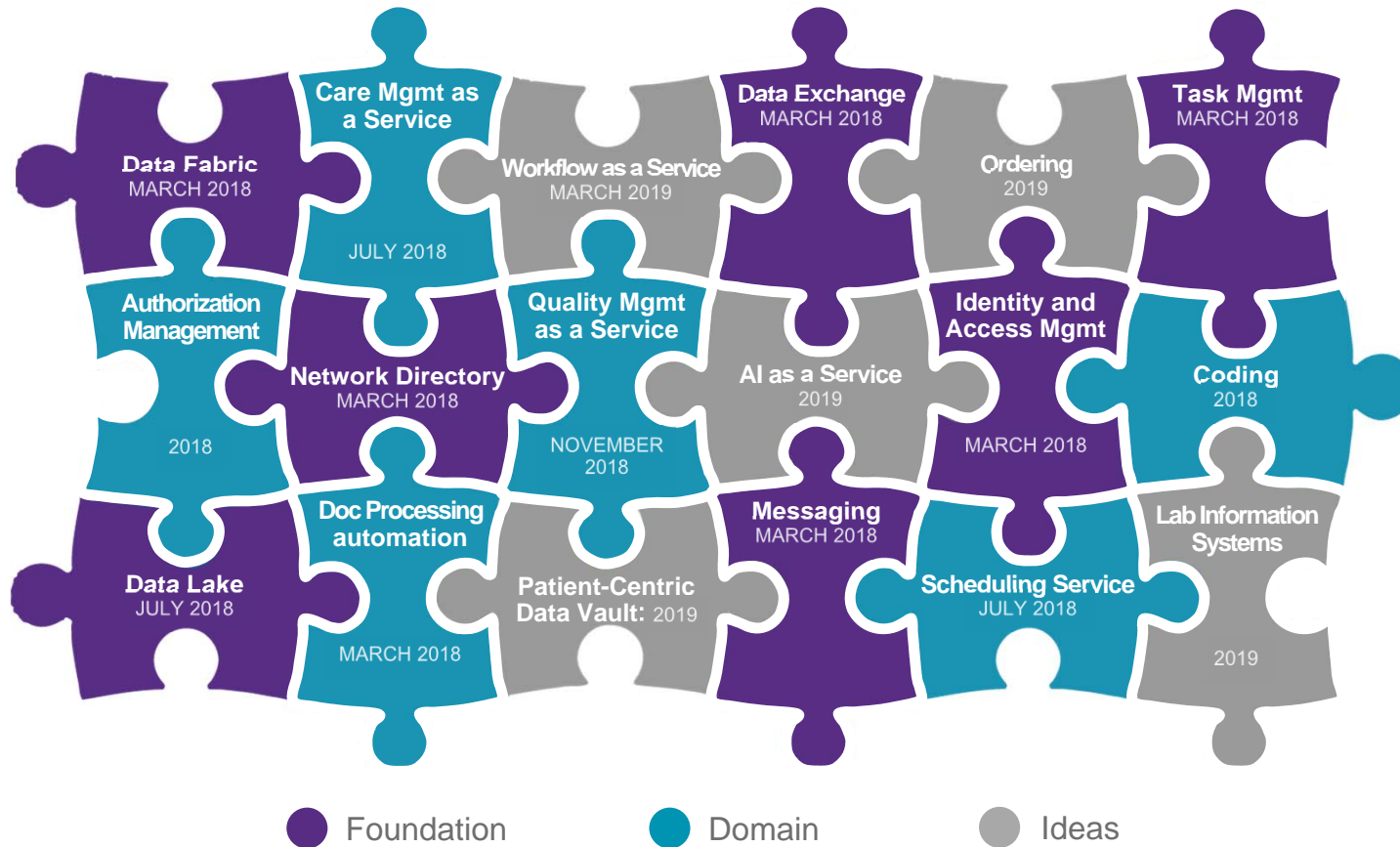
ONGOING RE-PLATFORMIZATION

FUTURE STATE

We are prioritizing and categorizing services based on:
- Risk
- Resiliency
- Performance
- Expansion
- Innovation

IDEAS (ALPHA) BUILD NET-NEW (BETA/GA) ENHANCE/NURTURE (GU) TO DEPRECATE (SST) DEPRECATED (RTD)

ONGOING RE-PLATFORMIZATION

We already have a diverse portfolio of microservices planned for 2018 and beyond

Data Fabric — MARCH 2018
Care Mgmt as a Service — JULY 2018
Workflow as a Service — MARCH 2019
Data Exchange — MARCH 2018
Ordering — 2019
Task Mgmt — MARCH 2018
Authorization Management — 2018
Network Directory — MARCH 2018
Quality Mgmt as a Service — NOVEMBER 2018
AI as a Service — 2019
Identity and Access Mgmt — MARCH 2018
Coding — 2018
Data Lake — JULY 2018
Doc Processing automation — MARCH 2018
Patient-Centric Data Vault: 2019
Messaging — MARCH 2018
Scheduling Service — JULY 2018
Lab Information Systems — 2019
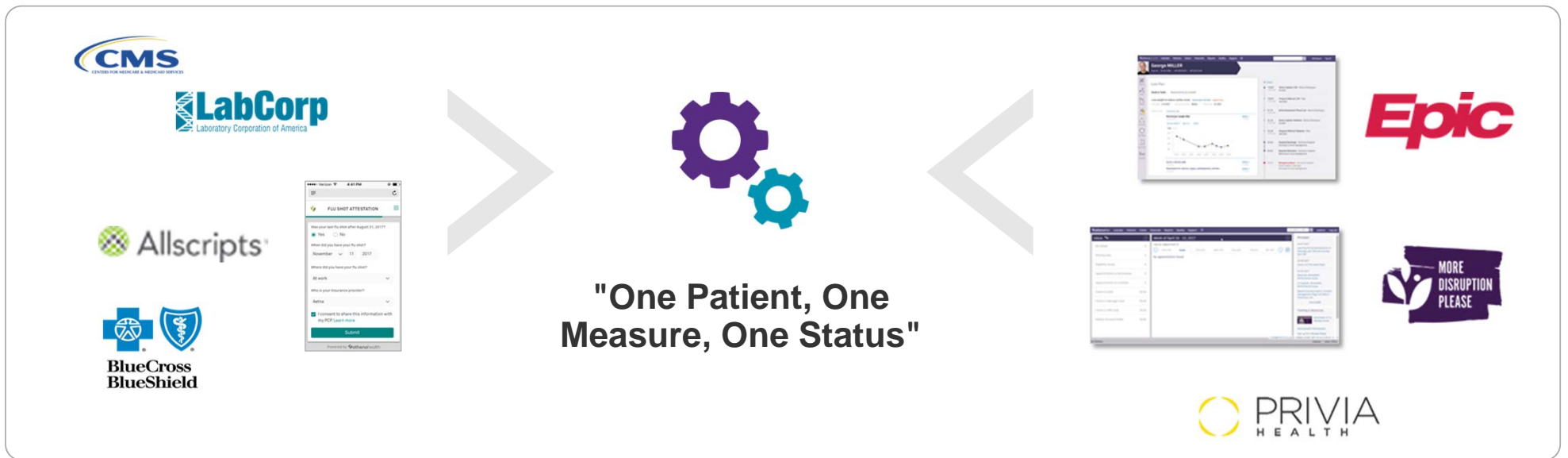
● Foundation   ● Domain   ● Ideas

We are dramatically boosting R&D efficiency as we develop across the platform

QUALITY MANAGEMENT AS A SERVICE

7x
greater efficiency in R&D

60+%
reduction in people cost

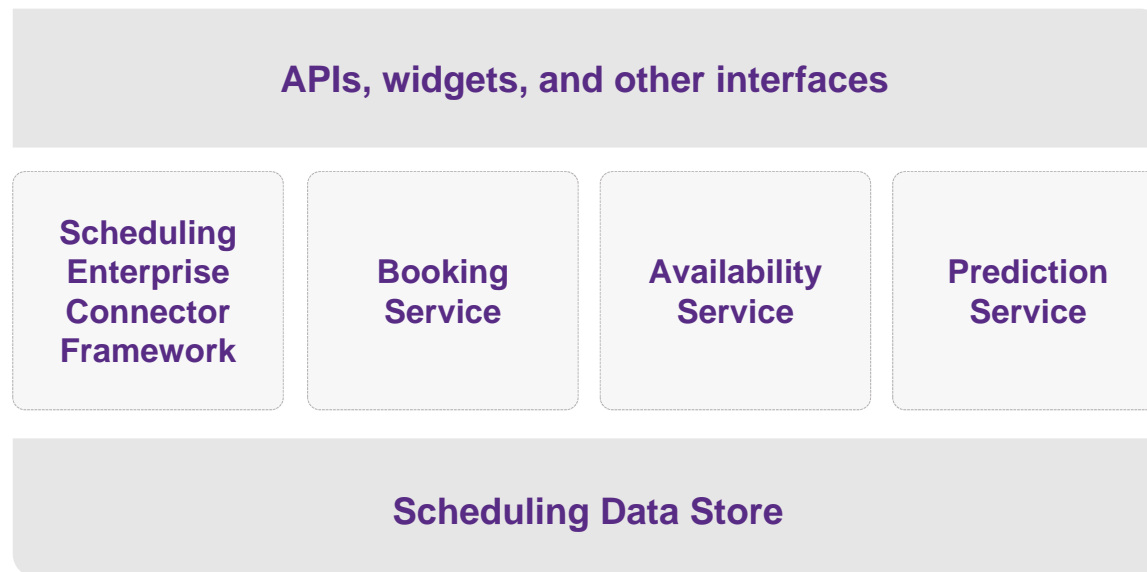"One Patient, One Measure, One Status"

We are generating true network effect in our services built on top of our provider and patient networks

SCHEDULING SERVICE

athenaNet

External hospital system

External ambulatory system

APIs, widgets, and other interfaces

Scheduling Enterprise Connector Framework

Booking Service

Availability Service

Prediction Service

Scheduling Data Store

RESILIENCY

COST

SCALE

We are using machine learning to take on work at scale, while delivering the most cost-effective and efficient services
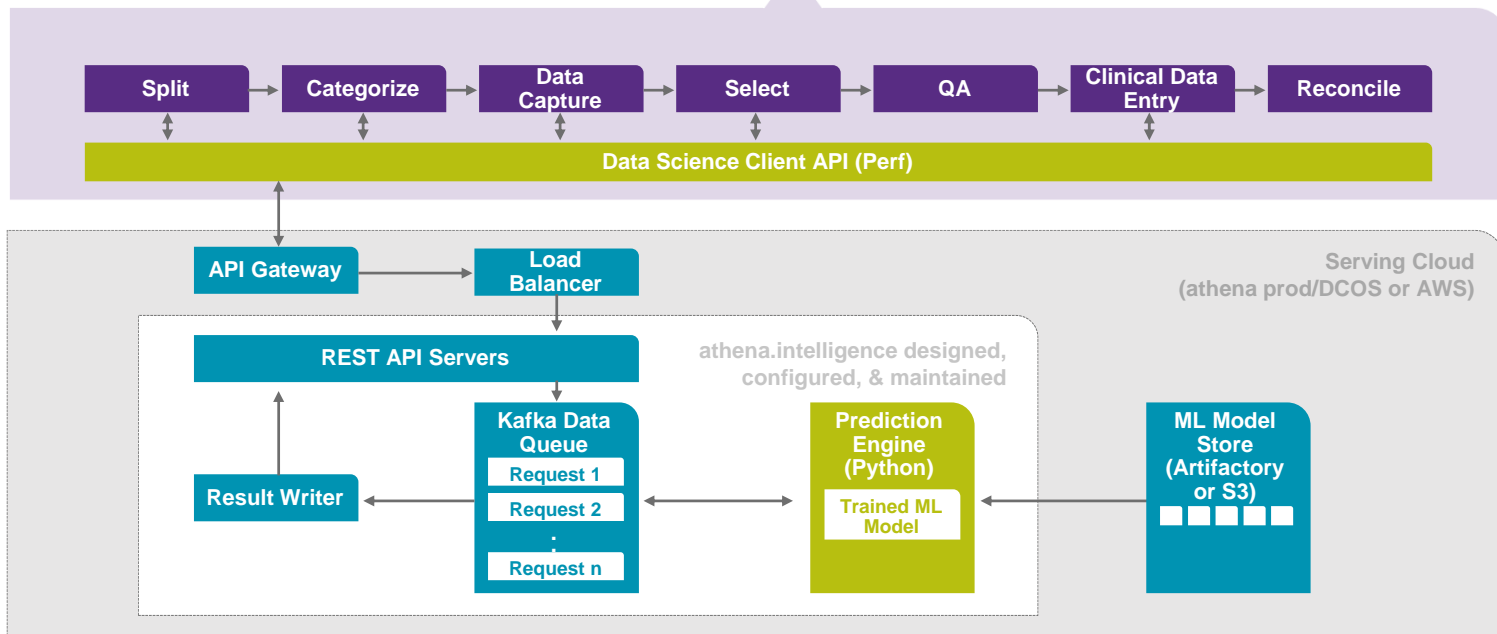
AUTOMATED SERVICES

| DOCUMENT SERVICES | INBOX | DISCHARGE SUMMARIES | CLAIM PROCESSING | POSTING |

Split → Categorize → Data Capture → Select → QA → Clinical Data Entry → Reconcile

Data Science Client API (Perf)

Serving Cloud (athena prod/DCOS or AWS)

API Gateway → Load Balancer

REST API Servers

athena.intelligence designed, configured, & maintained

Result Writer

Kafka Data Queue
- Request 1
- Request 2
- .
- Request n

Prediction Engine (Python)
- Trained ML Model

ML Model Store (Artifactory or S3)

The platform will foster an architecture of collaboration

…which will enable the creation of the healthcare internet

OUR PROJECT	PRE-VISIT		VISIT		POST-VISIT		ON-GOING	
	Provider and Practice Enrollment	**Acquisition and Scheduling**	**Registration and Check-in**	**Intake and Exam**	**Ordering and Referring**	**Claims and Payments**	**Care Coordination**	**Automation and Insight**
The internet of Healthcare VISION	**Linked in** for doctors	·●○ OpenTable· for healthcare	*Tripit* Organize your travel for appointments	facebook. for patients	UBER for referrals	venmo for claims	slack for care teams	autopilot for care delivery
YEAR END 2018 STATE	(2018) National Provider Directory	(2018) National Calendar Service	Clipboards and Photocopies	Documents and Templates	(2019) Orders as a Service	Batches and Errors	(2018) 300K+ Epocrates providers with access to coordination	(2020) AI as a Service

The age of the platform

WE ARE COMMITTED TO:

Opening up the network

Multiplying its intelligence

Freeing people to do what matters

IN THE PURSUIT OF DELIVERING A PLATFORM FOR HEALTHCARE THAT IS:

Fast, scalable, cost efficient, resilient, collaborative, and infinite in possibilities.

Core Services Strategy

Kyle Armbrester
Chief Product Officer

Core Services is focused on executing against our commitments and delivering results

Our purpose

unleashing our collective potential to transform healthcare

Our Commitments

Open the network	Multiply intelligence	Free people to do what matters

Our Fundamentals

People	Culture	Tech

Our Results

Revenue growth	Operating results	Managed risk

**Open Up
The Network**

1 We are breaking down data silos and driving enhanced connectivity across health systems, while also doubling our hospital services footprint

**Multiply
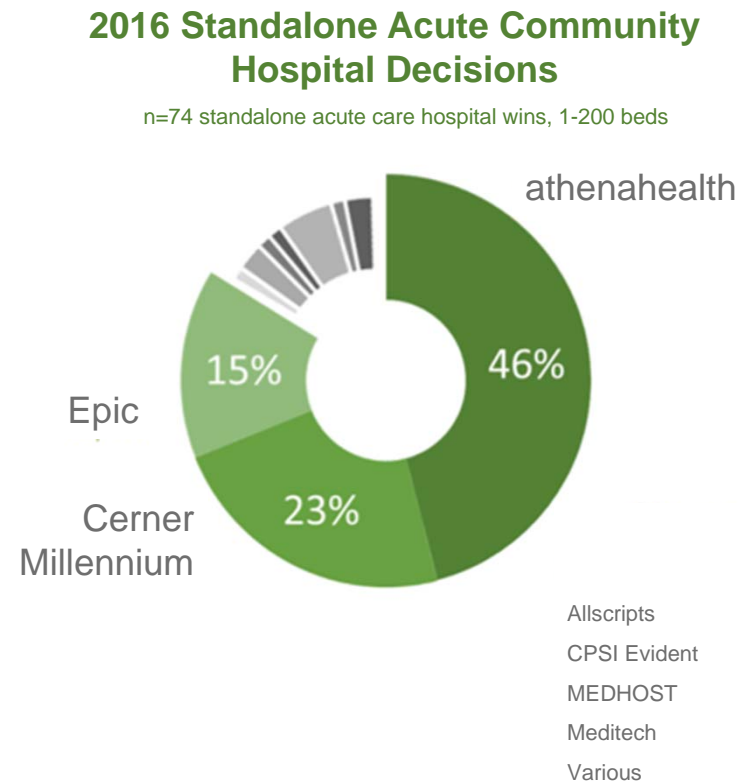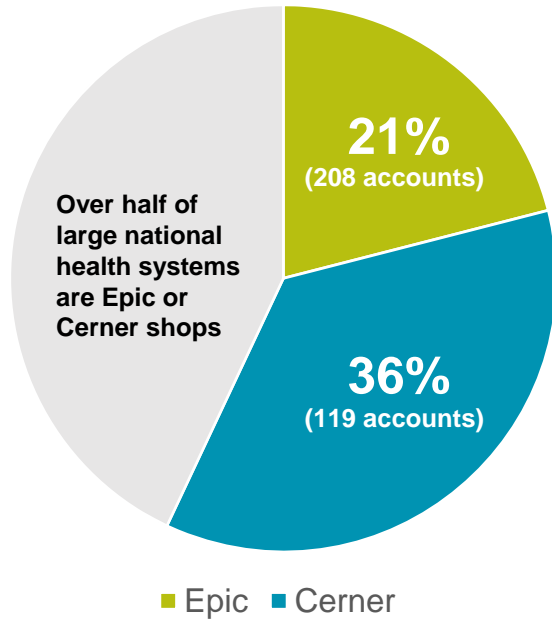Intelligence**

2 We are increasing client market share using network insights

**Free People To
Do What Matters**

3 We are doubling Value Per Visit by taking on significant additional work from clients' plates

Open Up
The Network

1 We are breaking down data silos and driving enhanced connectivity across health systems, while also doubling our hospital services footprint

Network Depth
Extend native customers on the network
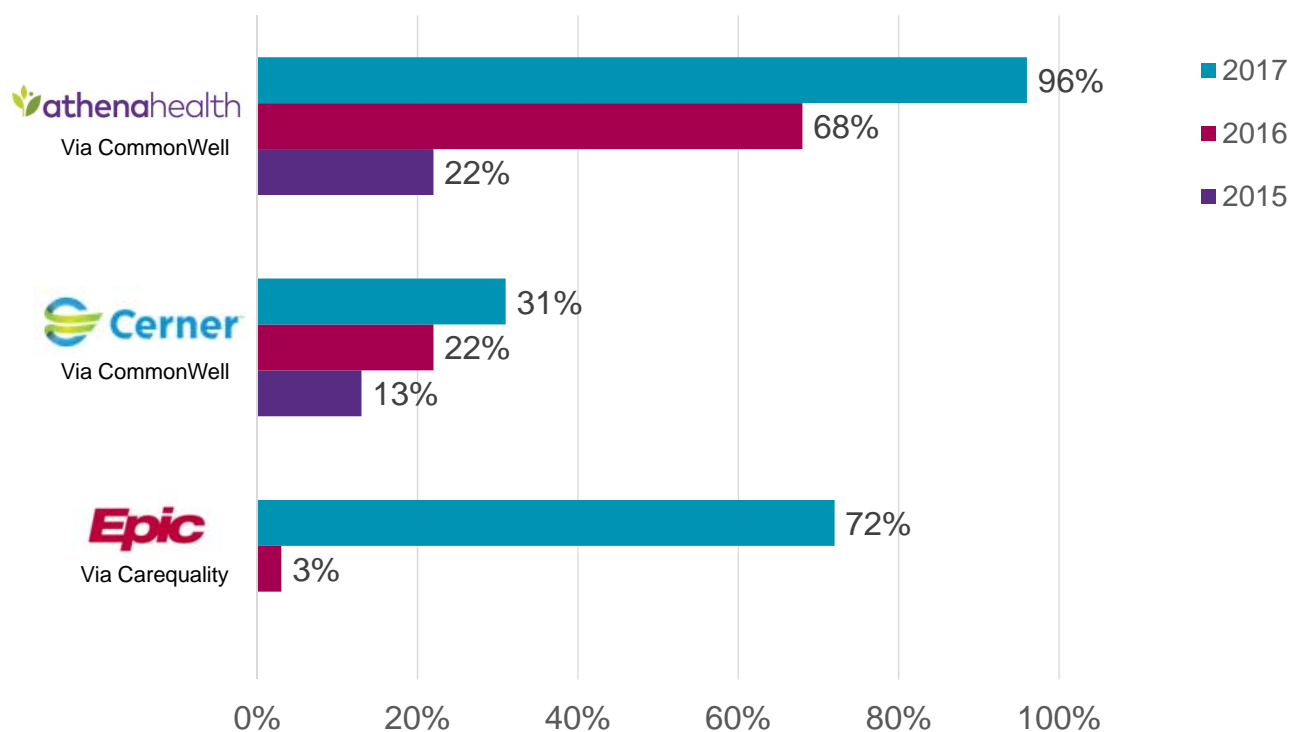
Network Expansion
Make it easier to connect to the network

We are expanding across the continuum through both enhanced connectivity to legacy incumbents and full system displacement at the lower end of the market

Over half of large national health systems are Epic or Cerner shops

21%
(208 accounts)

36%
(119 accounts)

- Epic
- Cerner

2016 Standalone Acute Community Hospital Decisions

n=74 standalone acute care hospital wins, 1-200 beds

athenahealth — 46%

Epic — 15%

Cerner Millennium — 23%

Allscripts	3%
CPSI Evident	3%
MEDHOST	1%
Meditech	6%
Various	3%

We are expanding our interoperability coverage across the continuum

% sites accessible by Patient Record Sharing out of known sites eligible to be accessible by Patient Record Sharing

athenahealth
Via CommonWell
- 2017: 96%
- 2016: 68%
- 2015: 22%

Cerner
Via CommonWell
- 2017: 31%
- 2016: 22%
- 2015: 13%

Epic
Via Carequality
- 2017: 72%
- 2016: 3%

Legend:
- 2017
- 2016
- 2015

Adventist HEALTH SYSTEM

athenahealth   Cerner

" Our physician technology satisfaction scores have significantly increased since we implemented athenaClinicals, replacing NextGen and Cerner ambulatory EHRs. The transition to athenaClinicals was rapid and smooth, physician adoption has been strong, and the physicians are actively leveraging the integration between athenaClinicals and Cerner inpatient."

- Bryan Stiltz, SVP, Physician Enterprise, Adventist Health System

Note: 1) athena & Epic reported on organization level while Cerner is reported on a facility level; 2) Cerner numbers are self-reported; and 3) Cerner & Epic include ambulatory sites
*Epic 2017 numbers are from Jan 2018.

Interoperability expansion will enrich the network intelligence feeding into our clinical workflows both on desktop and mobile
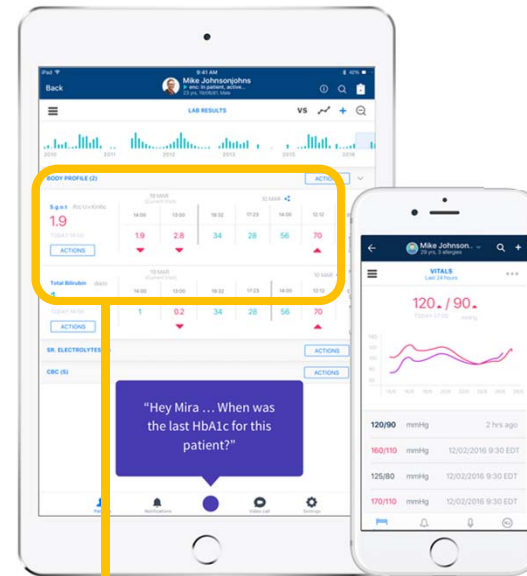
Clinicals Timeline

Intelligent navigation of patient information
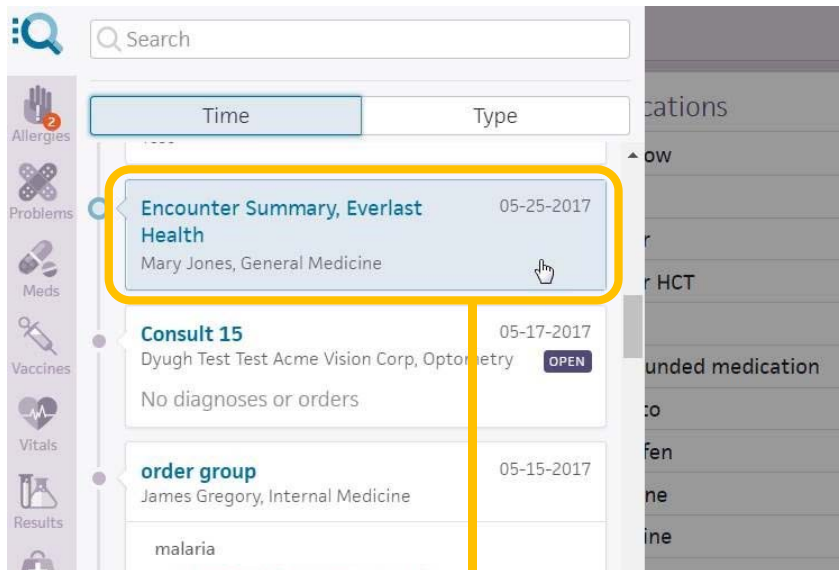
Epic information via Carequality

Epocrates branded

Intelligent, virtual medical assistant

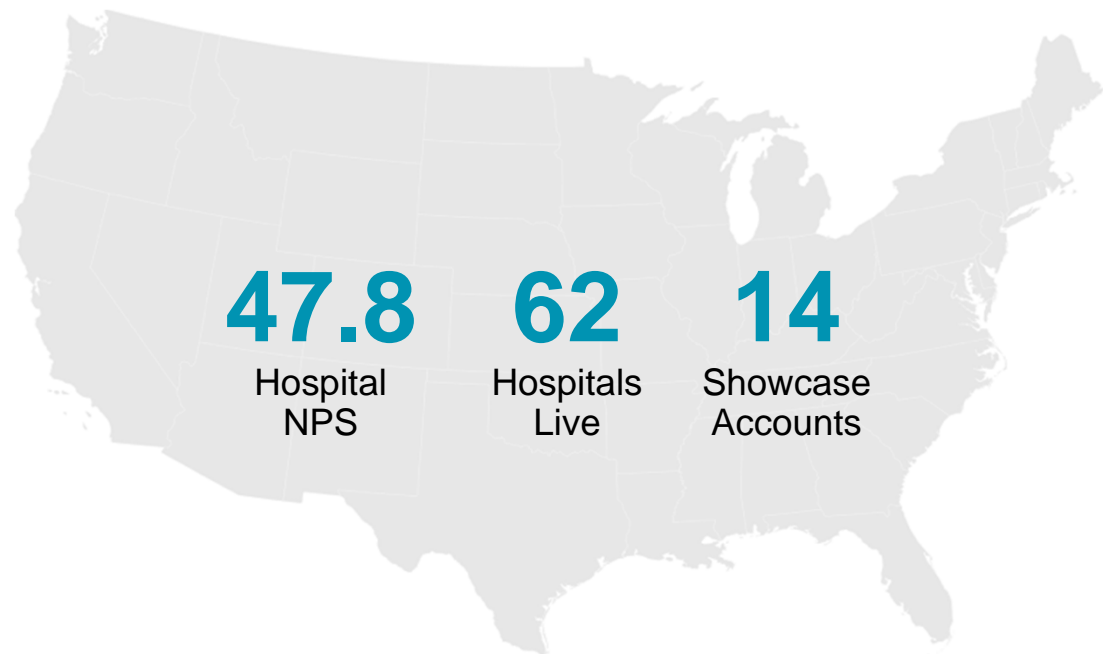Cerner Information via mObjects, CCL, and CommonWell

Reduces charting time by **30%**

Powered by machine learning and natural language processing

Single pane of glass between inpatient and outpatient

In 2017, we continued significant strides in our hospital segment and were recognized by KLAS as a category leader for 2018

KLAS CATEGORY LEADER
ACUTE CARE EMR (COMMUNITY HOSPITAL)
2018

47.8
Hospital NPS

62
Hospitals Live

14
Showcase Accounts

" Within just a few short months of going live on athena's cloud platform, we exceeded our expectations with a **75 percent increase in cash collections over baseline**. For the first time ever, we're fulfilling every single behavioral Meaningful Use measure and are on track to attest successfully in 2017."

– Brad Huerta, CEO, Lost Rivers

" When we first partnered with athena, our time in **accounts receivable was close to 100 days**—now, thanks to increased efficiencies in our revenue cycle, it's down to 44."

- Kimberly Dalrymple, CFO Cascade Medical Center

Our cash flow success is resonating in market - while our other key revenue cycle metrics show continued improvement and stability

	2016	2017	Change
Cash flow as a % baseline trend	103%	106%	3% increase
Discharged Not Final Billed (DNFB) Median	14.7 days	11.5 days	22% decline
Days Accounts Receivable (DAR) Median	59.0 days	54.7 days	8% reduction

Multiply Intelligence

2 **We are increasing client market share using network insights**

49% of provider executives said revamping the patient experience is one of their organization's top three priorities over the next five years. Many already have or are building the role of chief patient experience officer.

PwC Health Research Institute
Top health industry issues of 2018: A year for resilience amid uncertainty

Roughly **42 percent** of commercially insured Americans are enrolled in a HDHP with an annual deductible of $1,300 or more.

Deloitte 2017 Survey of US Health System CEOs
Deloitte Center for Health Solutions

47%

click thru rate on care gap outreach messages

athenahealth
INDUSTRY AVERAGE 26%

13%
Flu vaccine outreach led to 13% care gap closure in just one month

27%

scheduling rate for Medicare Annual Wellness Visit

athenahealth
INDUSTRY AVERAGE <10%
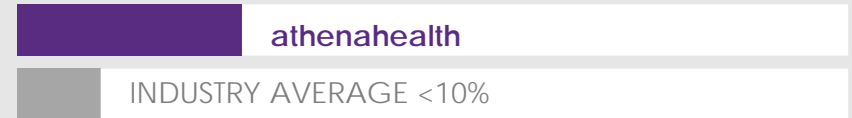
$46M
In incremental client revenue driven through Medicare Annual Wellness Outreach (~450k patient scheduled)

Through intelligence-driven outreach campaigns, we are taking on the work for providers to target and engage patients who should schedule a visit
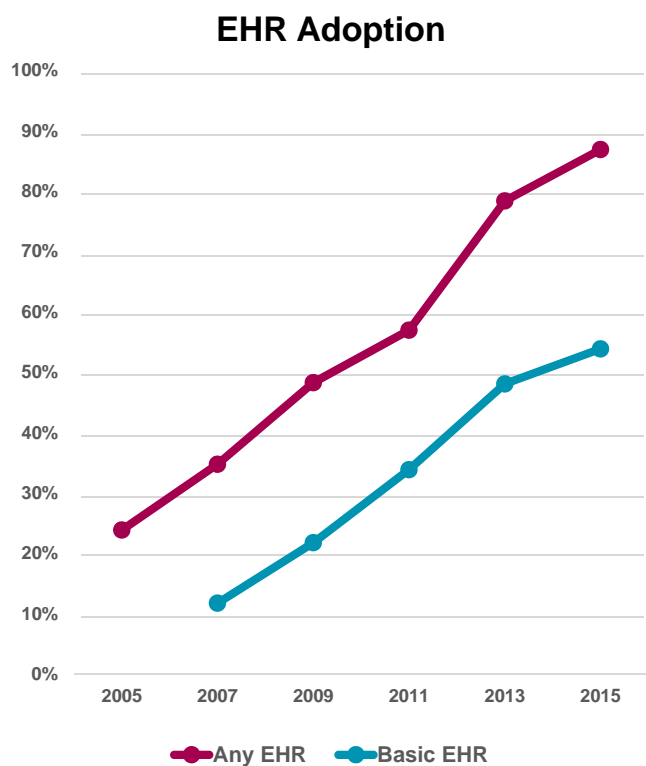
	Campaign	Q1			Q2			Q3			Q4		
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Communicator Triggers	ReminderCall					SEGMENTATION		GA →					
	Self-Pay					CONTENT/DESIGN	SEGMENTATION			GA →			
	Guest Pay	BETA: CONTENT						SEGMENTATION	GA →				
	Appointment Confirm.					SEGMENTATION		GA →					
OM Campaigns Optimizations	MAWV			●		●		●		●		●	
	Colon Cancer							CONTENT/DESIGN		GA →			
	Breast Cancer				CONTENT/DESIGN				GA →				
	Diabetes Gaps			CONTENT/DESIGN					GA →				
AWO/CGO	Annual Wellness Visit			TIMING, MODES, CONTENT		GA →							
	Well Child Visit			CONTENT/DESIGN		GA →							
	HPV Vaccine				CONTENT/DESIGN		GA →						
	Recommended Vaccine					CONTENT/DESIGN		GA →					
	Flu Vaccine								CONTENT/DESIGN		GA →		

● **Existing Ongoing Comm.**   ● **Comm. Beta Group Experimental Testing**   ● **Pop Health Clients Experimental Testing**   ● **AWO Clients Experimental Testing**   ● **GA**

Free People To Do What Matters

3 | **We are doubling Value Per Visit by taking on significant additional work from clients' plates**

While EHR adoption is at an all time high, so is provider burnout from increasing administrative burden and general system fatigue

EHR Adoption

Legend: Any EHR, Basic EHR

Growth of Physicians and Administrators
1970-2009

>50% physician time spent on EHR and administrative work

54% internal medicine physician report being burnt out

Legend: Physicians, Administrators, Percent growth in U.S. healthcare spending per capita
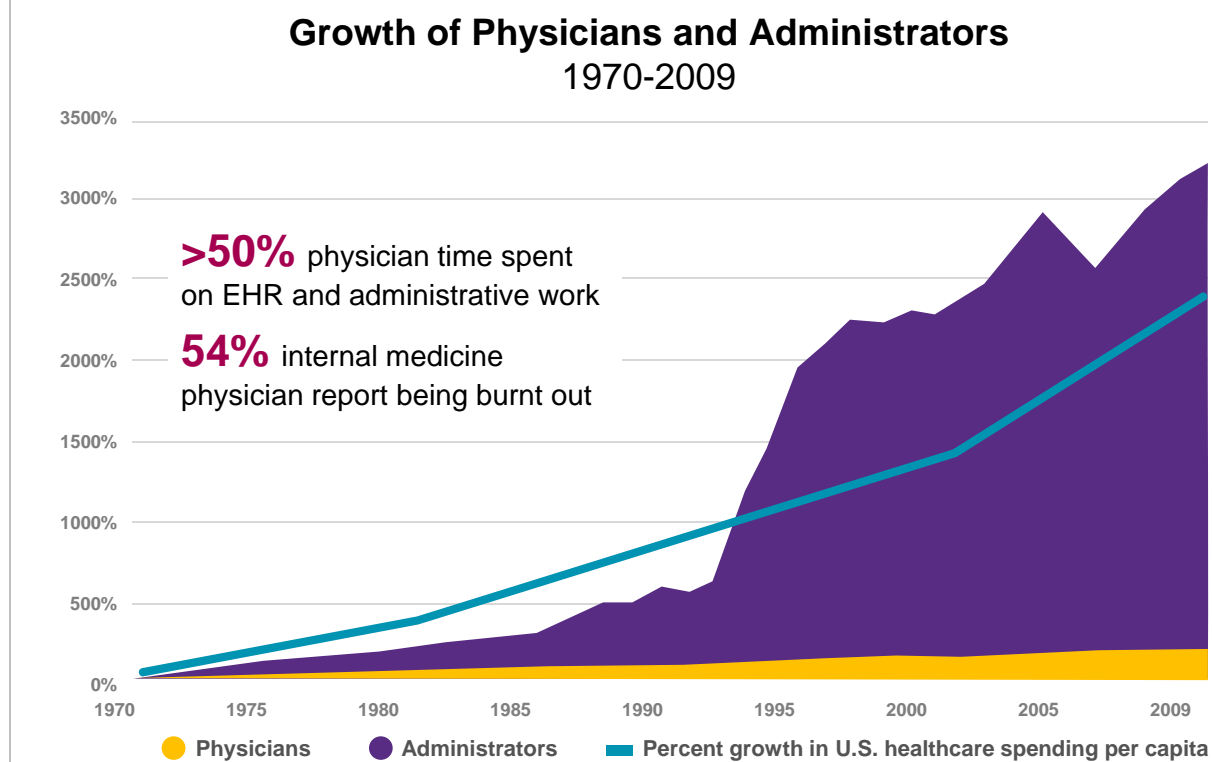
In response, we're focused on reducing work from providers, and completed foundational work in 2017 to measure and project the impact we can drive

Time Motion Study

23.5k

data points collected from initial study thus far to baseline time for users to complete common tasks

Workflow Heuristics

609

experience design opportunities identified from an audit of 55 workflows in athenaNet

Path to Dramatic Value Expansion

2x

value per visit from our core services

Time on Task   Simplicity and Efficiency

We have good line of sight on the investments we need to make to double value per visit over the next 2 years

athenaOne Value Per Visit

Legend:
- Collector
- Clinicals
- Communicator

+150%

+50%

+67%

Y-axis: $$$$$, $$$$, $$$, $$, $, -

X-axis: Current, 2018, 2019
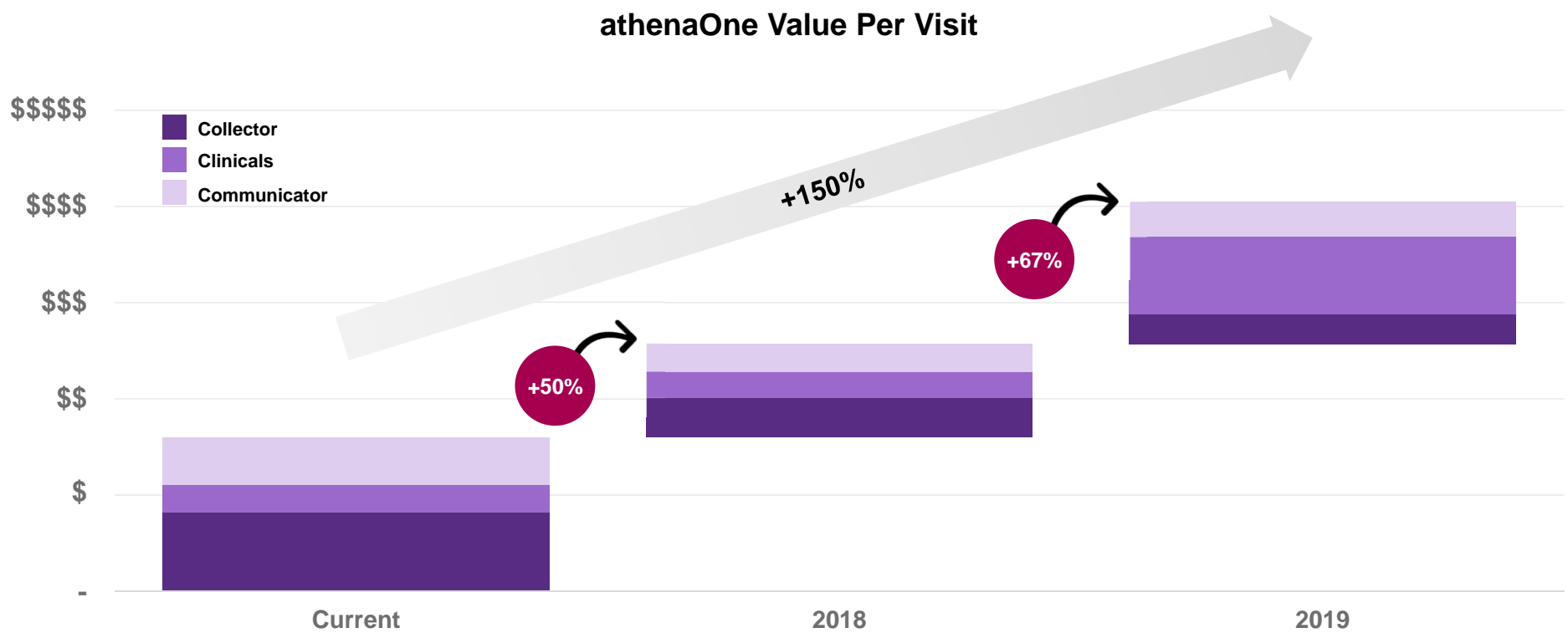
We are driving work reduction through service depth and expansion, yielding an uptick to value per visit

Overpayments
Live across the base

- Causes ~40% of Posting cases each year
- **Reduces an average of 5 hours per provider per year**
- One initial Enterprise client was able to eliminate 11 FTE because of this shift

Authorization Mgmt
Live and expanding in 2018

- ~70M authorizations per year, 7 mins per phone authorization
- Physicians loathe this work: "This is a godsend" - Lost Rivers
- **Contributes to athena's TCO by alleviating 0.5 FTE of client work per provider**

Launching for hospitals in 2018, further expanding in 2019

Coding-Related Denials
Live across base in Q1 2018

- We address these claims 6 days faster than our clients
- **Yields $25 more revenue per resubmitted claim**
- Reduces an average of 2 hours per provider per year

Coding
Underway

- 44% of rural hospitals cited Coding as top tech issue impacting organizational revenue
- Takes current clients as long as 4 days
- Small community hospitals spend an average of $65,000 per year on salary for a coder

In 2018, we are doubling the document services processing for our providers and staff at no additional cost to them, and at less cost to us

Our providers **receive 120M+** paper documents that come through fax, mail, and in-person visits

We've applied machine learning to document processing steps – seeing **automation rates up to 90%**

As a result, we've **driven down unit costs**, creating scaling capacity to take on 100% of documents for less spend

2017	
110 hours saved per provider	• Eliminated millions of hours of fax processing
3.2 minutes saved per visit	• Dark launched machine learning to prove up to 90% automation rates on doc processing steps

EOY 2018	
200 hours saved per provider	• Will take on 100% of documents from clients, expanding to cover those generated inside a practice as well, doubling what we process today
5.9 minutes saved per visit	

We are removing the work to find, engage, and collect from patients

Patient Outreach and Scheduling

Current Value Per Visit: **$0.49**
Expanded Value Per Visit: **$1.74**

CHALLENGE

15% average care gap closure rate for call centers.

SOLUTION

Patient outreach services – optimization strategies are showing uptick in self-check in rates

Web scheduling – recent campaigns showed a 30% increase in web scheduled appointments, **saving an estimated 300 hours of staff time**

Patient HPI/ROS (History of Present Illness/Review of Systems)

Current Value Per Visit: **$0.50**
Expanded Value Per Visit: **$1.50**

CHALLENGE

5 minutes of staff time spent documenting for ROS per patient.

SOLUTION

Digital check-in allows for electronic HPI/ROS documentation by the patient (alpha by end of 2018, live in early 2019)
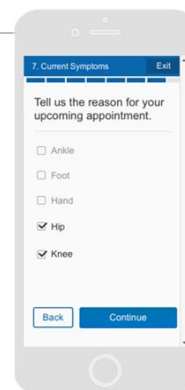
Patient Pay Improvements

Current Value Per Visit: **$0.89**
Expanded Value Per Visit: **$1.29**

CHALLENGE

It costs healthcare organizations **$2.41** in administrative costs to collect from a patient.

SOLUTION

Guest Pay
(live in March 2018)

Self Service Payment Plans
(alpha by end of 2018, live in early 2019)
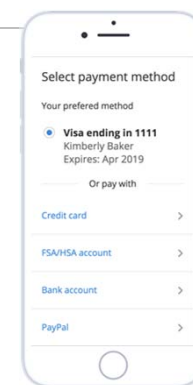
We've pushed workflow simplifications that materially reduce staff time on task

Claim Action Workflow – live

4 pages & 9 steps ➡ 1 page & 4 steps

~50% reduction in time on task

Clinical Timeline with Patient Record Sharing - live

"Saves me up to 30 mins / day"

**Quickly scan patient history
Click into fewer documents**

**Open Up
The Network**

1   We are breaking down data silos and driving enhanced connectivity across health systems, while also doubling our hospital services footprint

**Multiply
Intelligence**

2   We are increasing client market share using network insights

**Free People To
Do What Matters**

3   We are doubling Value Per Visit by taking on significant additional work from clients' plates
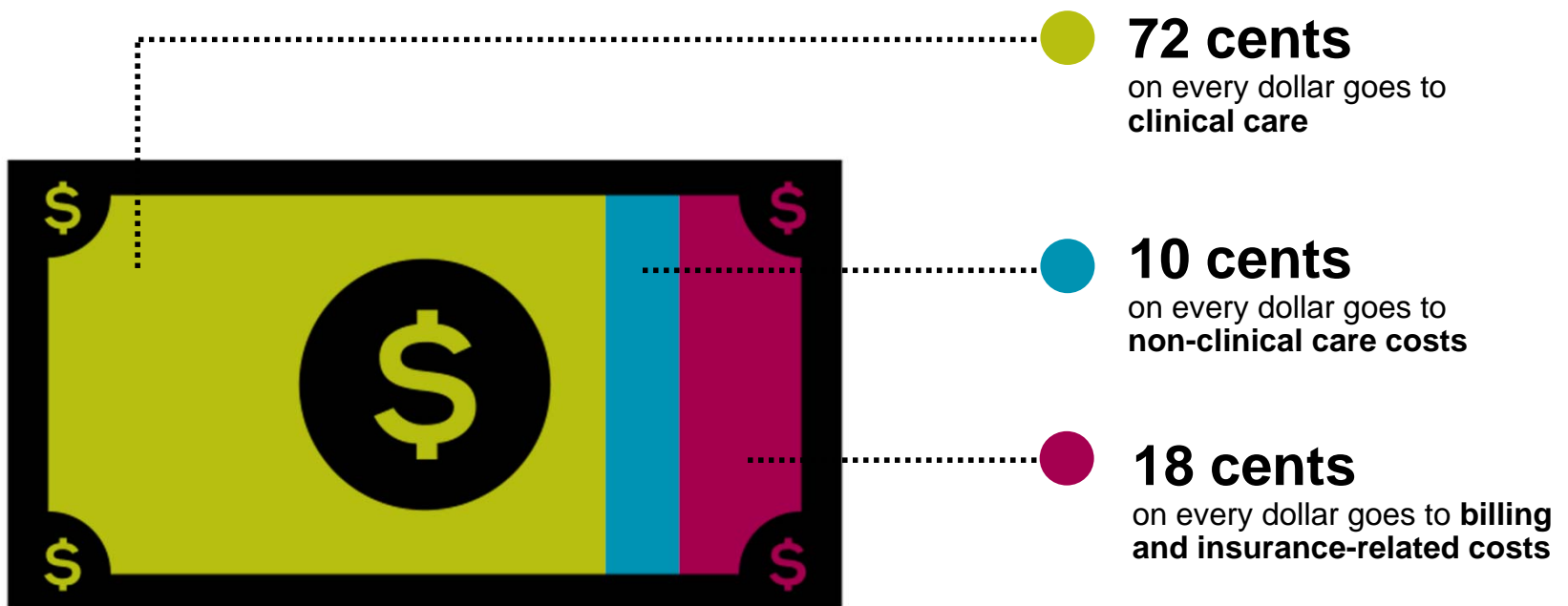
Network Services Strategy

Jonathan Porter
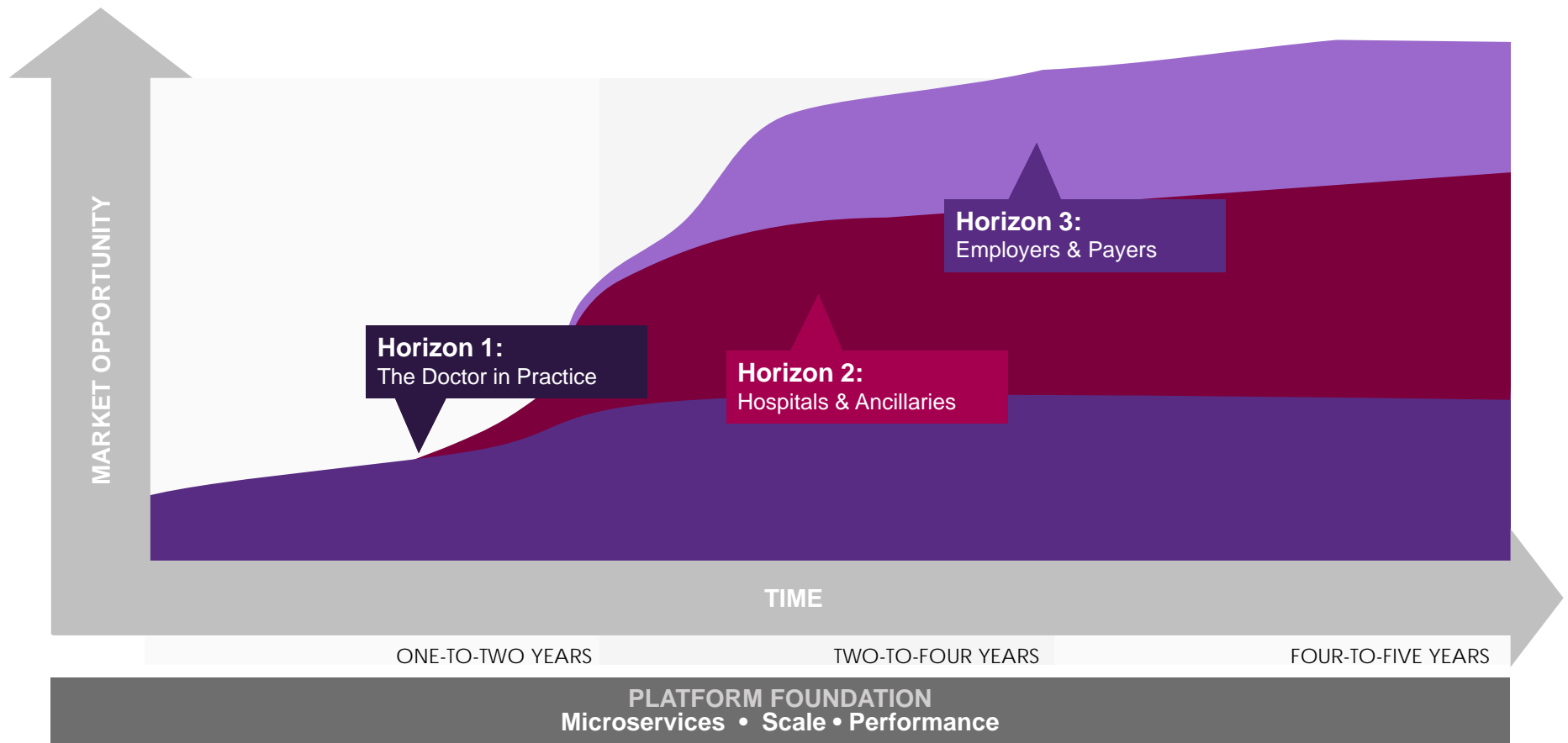SVP, Network Services

Solving the healthcare cost problem requires us to support both sides of the healthcare payment transaction

2016 U.S. Healthcare Expenditures: **$3.3 trillion**

72 cents
on every dollar goes to **clinical care**

10 cents
on every dollar goes to **non-clinical care costs**

18 cents
on every dollar goes to **billing and insurance-related costs**

Our strategy is to leverage current network capabilities to open new horizons

MARKET OPPORTUNITY

Horizon 1:
The Doctor in Practice

Horizon 2:
Hospitals & Ancillaries

Horizon 3:
Employers & Payers

TIME

ONE-TO-TWO YEARS | TWO-TO-FOUR YEARS | FOUR-TO-FIVE YEARS
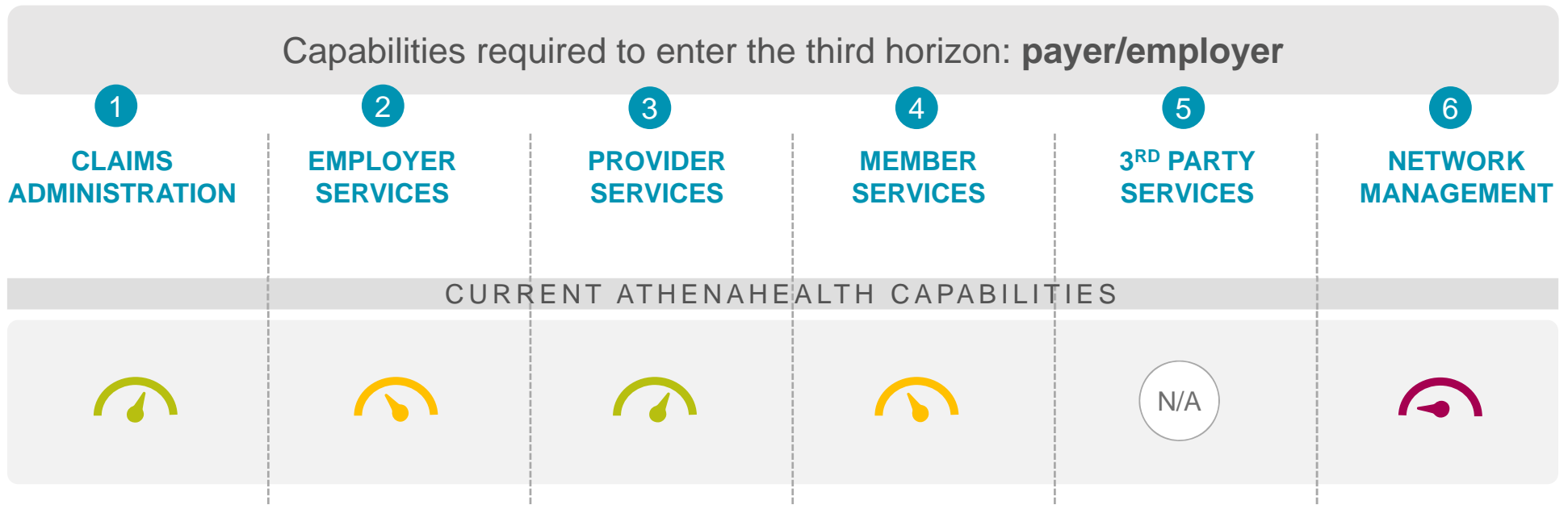
PLATFORM FOUNDATION
Microservices • Scale • Performance

If we were going to start from scratch, here's what we would need to do:

Capabilities required to enter the third horizon: **payer/employer**

1 CLAIMS ADMINISTRATION

- Claim processing and adjudication
- Provider payment processing
- Coordination of Benefits
- Claim status
- Claims auditing
- Claims subrogation
- Payment recovery capabilities

2 EMPLOYER SERVICES

- Claims
- Pricing
- Utilization
- Enrollment
- Employee Portal
- Clinical program impact
- Provider profiling
- Network access
- Member satisfaction
- Stop-loss reporting
- Reporting & Analytics

3 PROVIDER SERVICES

- Provider Enrollment
- Provider Portal
- Provider Call Center
- Eligibility and Authorization:
  - Eligibility maintenance
  - Real-time eligibility verification for providers
  - Pre-admission review
  - Precertification of services
  - Appeals/Grievance function
  - Utilization review/management (UR/UM)
  - Clinical Concurrent review
  - Retrospective review

4 MEMBER SERVICES

- Wellness programs
- Member enrollment
- Member Education Materials
- Member Service/Call Center
- Member on-line self-service capabilities
- ID cards
- Summary plan descriptions/evidence of coverage documentation

5 3RD PARTY SERVICES

- Medical Management
- Utilization Management
- PBM
- Stop Loss Prevention & Reinsurance
- Health Savings Account (HSA) Administration
- Care management programs
- Care/Disease Management programs

6 NETWORK MANAGEMENT

- Leased PPO networks (lease)
- Reference-based pricing arrangements
- Network contracting and negotiation
- Network selection
- Network performance monitoring

However, over 20 years we have built capabilities that we can leverage

Capabilities required to enter the third horizon: **payer/employer**

1	2	3	4	5	6
CLAIMS ADMINISTRATION	EMPLOYER SERVICES	PROVIDER SERVICES	MEMBER SERVICES	3RD PARTY SERVICES	NETWORK MANAGEMENT

CURRENT ATHENAHEALTH CAPABILITIES

				N/A	

We have deep experience in administering claims on a national scale

Sets of capabilities required to enter the third horizon: **payer/employer**

1	2	3	4	5	6
CLAIMS ADMINISTRATION	EMPLOYER SERVICES	PROVIDER SERVICES	MEMBER SERVICES	3RD PARTY SERVICES	NETWORK MANAGEMENT

Remittance (associated cost)

PROVIDER	$0.45
PAYER	$4.74
TOTAL	**$5.19**

Payment (associated cost)

PROVIDER	$0.48
PAYER	$2.20
TOTAL	**$2.68**

Remittance Rates

athenahealth

86.7%

Industry average

55%
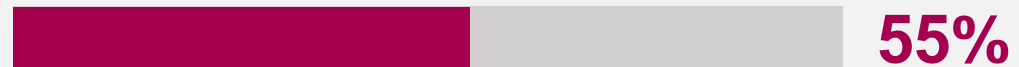
Our Core Services investments align with key Horizon 3 functions

Sets of capabilities required to enter the third horizon: **payer/employer**

1	2	3	4	5	6
CLAIMS ADMINISTRATION	EMPLOYER SERVICES	**PROVIDER SERVICES**	MEMBER SERVICES	3RD PARTY SERVICES	NETWORK MANAGEMENT
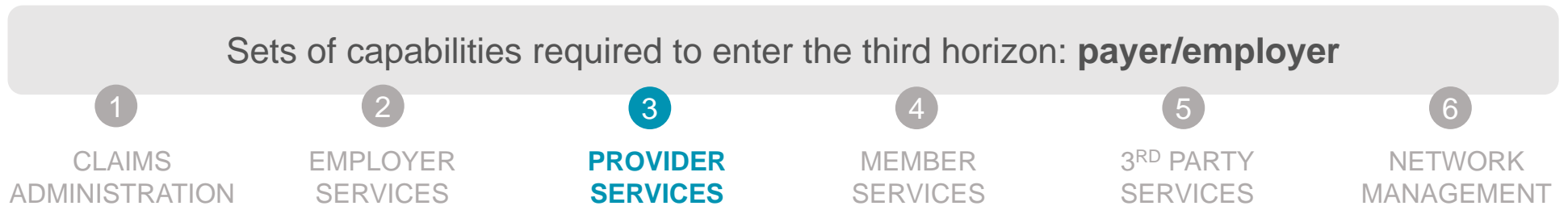
Eligibility (associated cost)

PROVIDER	$4.29
PAYER	$3.60
TOTAL	**$7.89**

Prior Authorization (associated cost)

PROVIDER	$3.64
PAYER	$5.61
TOTAL	**$9.25**

Authorization Management

2017 client work

7 minutes per phone authorization

~70M authorizations manually performed per year

2018 athenahealth work

0.5 FTE

reduction in client work per provider

…and investments in our network will differentiate us

Sets of capabilities required to enter the third horizon: **payer/employer**

①	②	③	④	⑤	⑥
CLAIMS ADMINISTRATION	EMPLOYER SERVICES	PROVIDER SERVICES	MEMBER SERVICES	3RD PARTY SERVICES	**NETWORK MANAGEMENT**

111K providers

18% of all U.S. patients last year

106M total patient records

A coordinated **provider network...**

- ✓ **Efficient**
- ✓ **Accessible**
- ✓ **Effective**

...that engages the consumer network

- ✓ **Transparent**
- ✓ **Convenient**
- ✓ **Valued**

In 2018, we will strengthen our network effect by focusing on three areas:

1 **Coordination** **2** **Access** **3** **Quality**

In 2018, we will strengthen our network effect by focusing on three areas:

1 **Coordination**   **2** Access   **3** Quality

55% of patients report that **their medical history is missing or incomplete** when they visit their doctor

95% of physicians have experienced difficulty delivering medical **care because patients' records were not easily accessible**

Epocrates and athenaWell provide easy access to our coordinated care network for any individual provider or patient

Epocrates
Intelligent, virtual medical assistant

athenaWell
Intelligent navigation of patient information

30% reduction in charting time

Powered by machine learning and natural language processing

Single pane of glass between inpatient and outpatient

Pre-loaded care teams using our national patient and provider directories

Patient-centered care plan

Real-time communication tools to improve care coordination

Beta Q2-2018 | GA Q4-2018

Beta Q3-2018 | GA Q4-2018

© athenahealth

99

In 2018, we will strengthen our network effect by focusing on three areas:

1 Coordination   **2** **Access**   **3** Quality

Most specialties see a
2 to 3 week
appointment wait time

…and yet, nearly
30 percent
of all appointments
go unused

2016 athenaNet data

Our national calendar service will be a platform for matching supply and demand in healthcare

1% increase in scheduling yield would generate **$300M** in client revenue
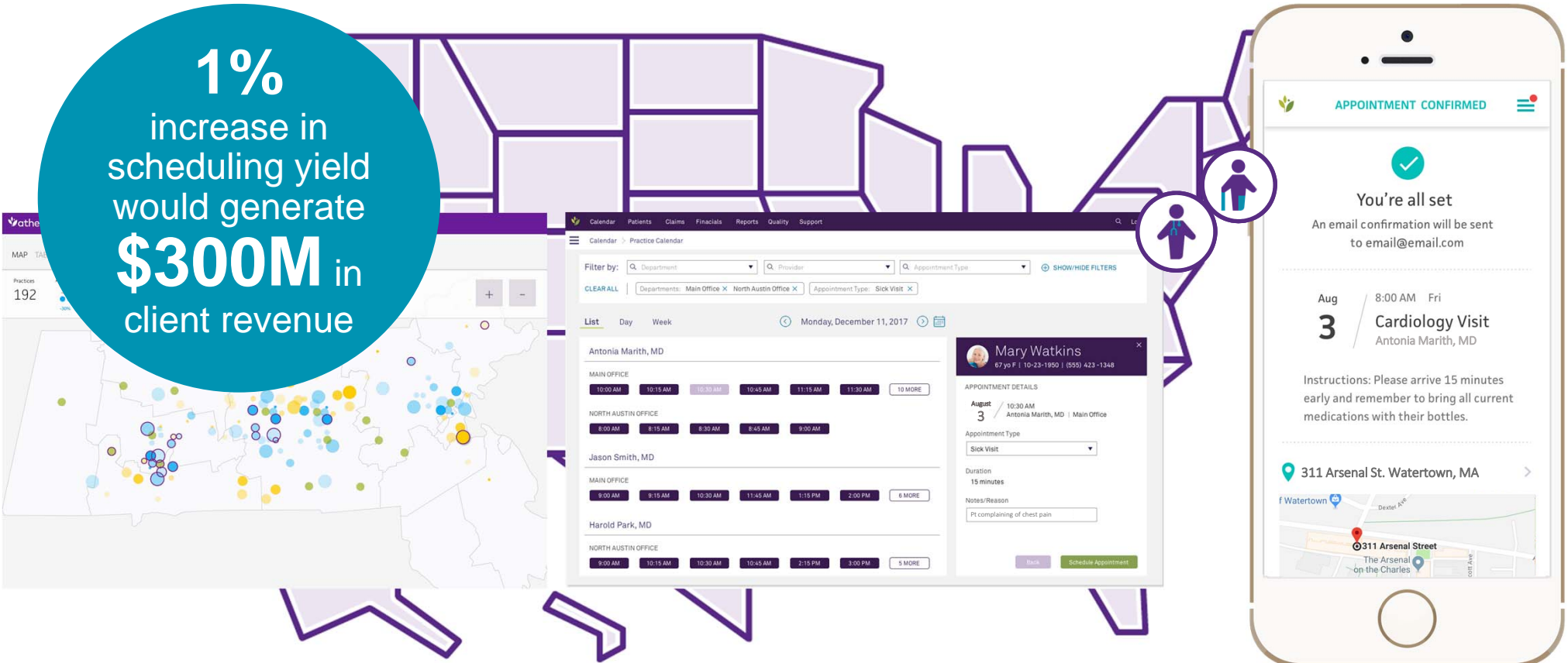
In 2018, we will strengthen our network effect by focusing on three areas:

1 Coordination   **2** Access   **3** Quality

4 to 8 hours

are spent per week per physician documenting measures for quality reporting

Our untethered quality engine and clinical decision support tools will allow clients to define quality and apply network rules at the point of care

2017+

Quality Management as a Service and Clinical Decision Support

2014-2016

athenahealth had success with quality programs

- Providers avoided **$265M** in penalties and received **$182M** in incentive payments for MU & PQRS

- We posted payment for **over 400** other quality programs

Our untethered quality engine and clinical decision support tools will allow clients to define quality and apply network rules at the point of care

2017+

Quality Management as a Service and Clinical Decision Support

Once we have tackled our three main areas of…

✓ **Coordination**   ✓ **Access**   ✓ **Quality**

…we will have created the most coordinated and engaged provider and consumer networks in healthcare
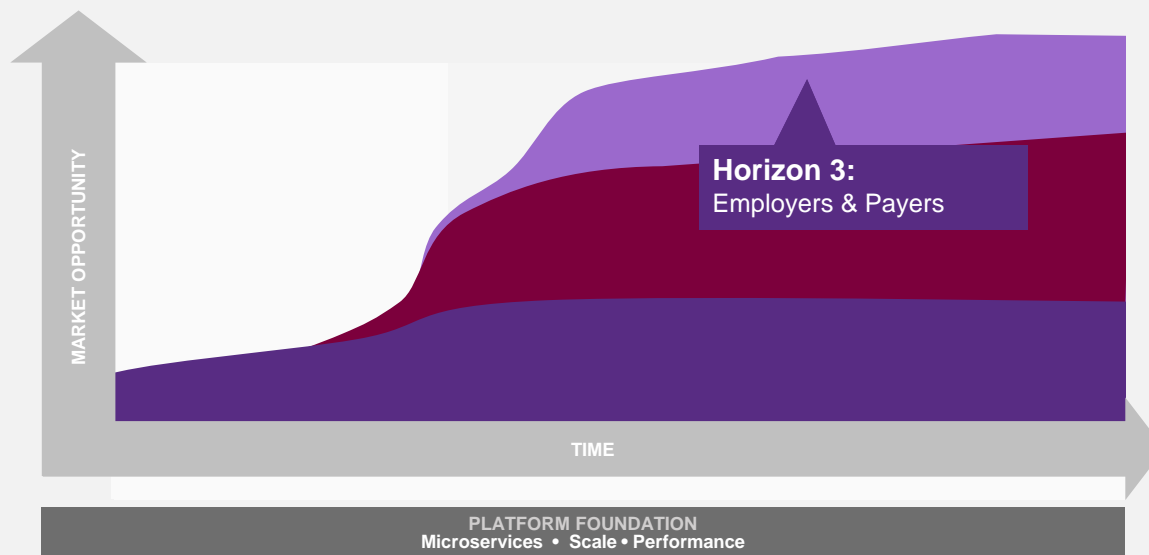
Provider network
- ✓ **Efficient**
- ✓ **Accessible**
- ✓ **Effective**

Consumer network
- ✓ **Transparent**
- ✓ **Convenient**
- ✓ **Valued**

…positioning us for entry into Horizon 3

Sets of capabilities required to enter the third horizon: **payer/employer**

1 CLAIMS ADMINISTRATION

2 EMPLOYER SERVICES

3 PROVIDER SERVICES

4 MEMBER SERVICES

5 3RD PARTY SERVICES

6 NETWORK MANAGEMENT

MARKET OPPORTUNITY

Horizon 3:
Employers & Payers

TIME

PLATFORM FOUNDATION
Microservices • Scale • Performance

Presentation Break

Management Q&A

We are unleashing our collective potential

1 **Opening the network**

2 **Multiplying intelligence**

3 **Freeing people to do what matters**

Please join us:
Lunch with Management

athenahealth

Thank You

Appendix

Additional points of interest for fiscal year 2018

It is best to assess our business on a year-over-year basis as there is typically an increase in expense levels during Q1 versus Q4

- FICA payroll tax reset, benefit rate changes, trade shows, etc.

The number of working days varies each quarter; impacting collections during each period:

Q1 17	Q2 17	Q3 17	Q4 17	Q1 18	Q2 18	Q3 18	Q4 18
62	64	63	61	62	64	63	62

Our estimated FY 2018 capital expenditures, excluding capitalized software, is approximately 4% of consolidated revenue

Our estimated FY 2018 stock-based compensation expense range, including amortization of capitalized stock-based compensation related to software development, is approximately $52 million to $63 million

Our estimated FY 2018 amortization of purchased intangible assets range is approximately $19 million to $20 million

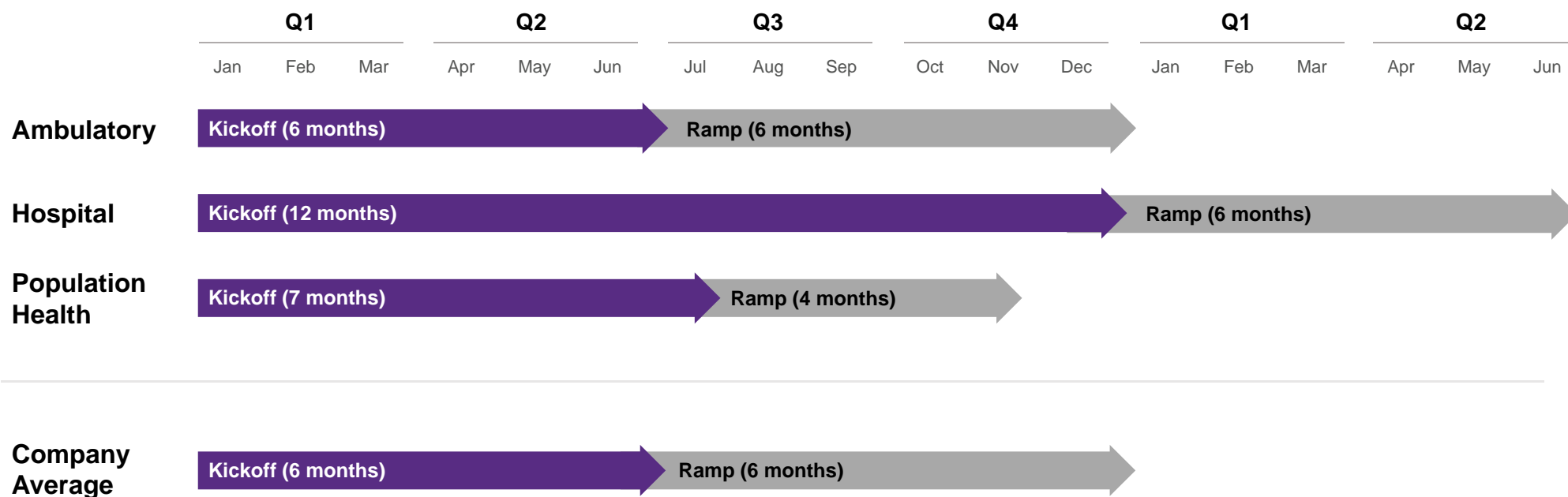Our estimated FY 2018 integration and transaction costs range is approximately $10 million to $13 million

Our estimated FY 2018 exit costs, including restructuring costs range is approximately $2 million to $6 million

Our expected FY 2018 weighted average basic share count is approximately 40.4 million

Our expected FY 2018 weighted average diluted share count is approximately 41.3 million

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Implementation cycle times for ambulatory, small hospital, and population health deals

	Q1			Q2			Q3			Q4			Q1			Q2		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun

Ambulatory — Kickoff (6 months) → Ramp (6 months)

Hospital — Kickoff (12 months) → Ramp (6 months)

Population Health — Kickoff (7 months) → Ramp (4 months)

Company Average — Kickoff (6 months) → Ramp (6 months)

Note: The implementation timelines and ramp periods illustrated above are directional and may vary by sales segment and service

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Key metric definitions

Providers
The number of providers, including physicians, that have rendered a service which generated a medical claim that was billed during the last 91 days on the athenaCollector platform. Examples of physicians include Medical Doctors and Doctors of Osteopathic Medicine. Examples of non-physician providers are Nurse Practitioners and Registered Nurses.

Discharge Bed Days
Discharge bed days is defined as the number of days a patient is hospitalized in an inpatient level of care during the quarter. The day of the admission, but not the day of discharge, is counted. If both admission and discharge occur on the same day, it is counted as one inpatient day.

Covered Lives
Covered lives on the network is defined as the quarterly average of the number of patients for which we have eligibility, claims, pharmacy or risk data in the Population Health platform, for a given client in a given month.

Reconciliation of Non-GAAP Financial Measures to Comparable GAAP Measures

Non-GAAP reconciliation

GAAP Operating Income and Non-GAAP Operating Income

$Millions	Fiscal Year Ending December 31,		
	2017	**2016**	**2015**
Total revenue	$1,220.3	$1,082.9	$924.7
GAAP operating income (loss)	$70.6	$26.6	$(4.1)
GAAP operating margin (loss)	*5.8%*	*2.5%*	*(0.4)%*
Add: Stock-based compensation expense	54.3	66.5	64.1
Add: Amortization of capitalized stock-based compensation related to software development	2.8	5.0	4.4
Add: Amortization of purchased intangible assets	19.1	20.8	24.0
Add: Integration and transaction costs	9.5	2.4	1.0
Add: Exit costs, including restructuring costs	18.7	11.3	5.7
Less: Gain on investments, net	---	(0.3)	---
Non-GAAP Operating Income	**$175.0**	**$132.3**	**$95.1**
Non-GAAP Operating Margin	*14.3%*	*12.2%*	*10.3%*

Please note that the figures presented above may not sum exactly due to rounding.

2018 Guidance

Non-GAAP reconciliation for fiscal year 2018 expectations

GAAP Operating Income and Non-GAAP Operating Income

$Millions	Low	High
	Fiscal Year Ending December 31, 2018	
Total revenue	$1,310	$1,380
GAAP operating income	$108	$152
GAAP operating margin	*8.2%*	*11.0%*
Add: Stock-based compensation expense	61	50
Add: Amortization of capitalized stock-based compensation related to software development	2	2
Add: Amortization of purchased intangible assets	20	19
Add: Integration and transaction costs	13	10
Add: Exit costs, including restructuring costs	6	2
Non-GAAP Operating Income	**$210**	**$235**
Non-GAAP Operating Margin	*16.0%*	*17.0%*

Please note that the figures presented above may not sum exactly due to rounding.
See press release dated 2/14/18 for an explanation of presentation of Non-GAAP Financial Measures. Also, please note that all figures presented above reflect our beliefs as of February 15, 2018 only, and we undertake no obligation to update these forward-looking statements, except as required by law. In addition, forward-looking statements do not constitute guarantees of future performance. Lastly, our 2018 guidance is prior to the impact of any new accounting standards, including ASC 606, to allow for comparability against historical results.

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2018 Investor Summit

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